Ambulance Services

Policy Number: CS003.T
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➲ Instructions for Use

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Application

This Medical Policy does not apply to the states listed below; refer to the state-specific policy/guideline, if noted:

State	Policy/Guideline
Idaho	Ambulance Services (for Idaho Only)
Indiana	None
Kansas	Ambulance Services (for Kansas Only)
Kentucky	Ambulance Services (for Kentucky Only)
Nebraska	Ambulance Services (for Nebraska Only)
New Jersey	Ambulance Services (for New Jersey Only)
New Mexico	Ambulance Services (for New Mexico Only)
North Carolina	Ambulance Services (for North Carolina Only)
Ohio	Ambulance Services (for Ohio Only)
Pennsylvania	Ambulance Services (for Pennsylvania Only)
Tennessee	Ambulance Services (for Tennessee Only)

Coverage Rationale

➲ See Benefit Considerations

Emergency Air Ambulance services are considered Medically Necessary when all of the following criteria are present:

- The member's medical condition requires immediate transportation that cannot be provided by ground ambulance and a delay in transportation time may endanger the member's life or seriously endanger the member's health including:
  - When ground transport times are excessive (i.e., 30-60 minutes or longer); or
  - When weather or traffic conditions make ground ambulance transportation impractical, impossible, or overly time consuming; or
  - When the pickup point is inaccessible by ground ambulance

and
- The member's destination is the nearest acute care hospital that can meet the member's needs; and
- One of the following conditions exists:
  - Services are requested by police or medical authorities at the site of an Emergency; or
  - Advanced or basic life support is required during transportation

Emergency Air Ambulance services are not considered Medically Necessary for all other indications.

Emergency ground ambulance services are considered Medically Necessary when all the following criteria are present:
- The member's medical condition requires immediate transportation:
  - To the nearest acute hospital that can provide services appropriate to the covered person's illness or injury; or
  - To the nearest neonatal special care unit for newborn infants' treatment of illness, injuries, congenital birth defects; or complications of premature birth that require that level of care; or
  - To a hospital that provides a required higher level of care that was not available at the original hospital

  and
- A delay in transportation time may endanger the member's life or seriously endanger the member's health; and
- Advanced or basic life support is required during transportation

Emergency ground ambulance services without ground transportation are considered Medically Necessary when treatment is rendered by the Emergency ground ambulance personnel at the scene.

Emergency ground ambulance transportation is not considered Medically Necessary for all other indications.

Medical Records Documentation Used for Reviews

Benefit coverage for health services is determined by federal, state, or contractual requirements, and applicable laws that may require coverage for a specific service. Medical records documentation may be required to assess whether the member meets the clinical criteria for coverage but does not guarantee coverage of the service requested; refer to the guidelines titled Medical Records Documentation Used for Reviews.

Definitions

Check the federal, state, or contractual definitions that supersede the definitions below.

Air Ambulance: Medical transport by rotary wing Air Ambulance or fixed wing Air Ambulance as defined in Code of Federal Regulations (CFR) 42 CFR 414.605:
- Rotary wing Air Ambulance (RW) means transportation by a helicopter that is certified as an ambulance and such services and supplies as may be Medically Necessary.
- Fixed wing Air Ambulance (FW) means transportation by a fixed wing aircraft that is certified as a fixed wing Air Ambulance and such services and supplies as may be Medically Necessary.

Covered Health Care Service(s): Health care services, including supplies or pharmaceutical products, which UnitedHealthcare determines to be all of the following:
- Provided for the purpose of preventing, evaluating, diagnosing, or treating a sickness, injury, mental illness, substance-related and addictive disorders, condition, disease, or its symptoms.
- Medically Necessary (COC).

Emergency: A medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain) so that a prudent layperson, who possesses an average knowledge of health and medicine, could reasonably expect the absence of immediate medical attention to result in:
- Placing the health of the covered person (or, with respect to a pregnant woman, the health of the woman or her unborn child) in serious jeopardy;
- Serious impairment to bodily functions; or
- Serious dysfunction of any bodily organ or part (COC).

Emergency Health Care Services: With respect to an Emergency:
- An appropriate medical screening exam (as required under section 1867 of the Social Security Act or as would be required under such section if such section applied to an Independent Freestanding Emergency Department) that is

within the capability of the Emergency department of a hospital, or an Independent Freestanding Emergency Department, as applicable, including ancillary services routinely available to the Emergency department to evaluate such Emergency; and

- Such further medical exam and treatment, to the extent they are within the capabilities of the staff and facilities available at the hospital or an Independent Freestanding Emergency Department, as applicable, as are required under section *1867* of the *Social Security Act,* or as would be required under such section if such section applied to an Independent Freestanding Emergency Department, to stabilize the patient (regardless of the department of the hospital in which such further exam or treatment is provided). For the purpose of this definition, "to stabilize" has the meaning as given such term in section *1867(e)(3)* of the *Social Security Act [42 U.S.C. 1395dd(e)(3)].*
- Emergency Health Care Services include items and services otherwise covered under the policy when provided by an out-of-network provider or facility (regardless of the department of the hospital in which the items and services are provided) after the patient is stabilized and as part of outpatient observation, or an inpatient stay or outpatient stay that is connected to the original Emergency, unless each of the following conditions are met:
  a. The attending Emergency physician or treating provider determines the patient is able to travel using nonmedical transportation or non-Emergency medical transportation to an available network provider or facility located within a reasonable distance taking into consideration the patient's medical condition.
  b. The provider furnishing the additional items and services satisfies notice and consent criteria in accordance with applicable law.
  c. The patient is in such a condition to receive information as stated in b. above and to provide informed consent in accordance with applicable law.
  d. The provider or facility satisfies any additional requirements or prohibitions as may be imposed by state law.
  e. Any other conditions as specified by the Secretary.
- The above conditions do not apply to unforeseen or urgent medical needs that arise at the time the service is provided regardless of whether notice and consent criteria has been satisfied (COC).

Independent Freestanding Emergency Department: A health care facility that:

- Is geographically separate and distinct and licensed separately from a hospital under applicable state law; and
- Provides Emergency Health Care Services.

Long-Term Acute Care Facility (LTAC): A facility or hospital that provides care to people with complex medical needs requiring long-term hospital stay in an acute or critical setting (COC).

Medically Necessary: Health care services that are all of the following as determined by UnitedHealthcare or our designee:

- In accordance with Generally Accepted Standards of Medical Practice.
- Clinically appropriate, in terms of type, frequency, extent, service site, and duration, and considered effective for your sickness, injury, mental illness, substance-related and addictive disorders, disease, or its symptoms.
- Not mainly for the member's convenience or that of the member's doctor or other health care provider.
- Not more costly than an alternative drug, service(s), service site, or supply that is at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of the member's sickness, injury, disease, or symptoms.

Generally Accepted Standards of Medical Practice are standards that are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, relying primarily on controlled clinical trials, or, if not available, observational studies from more than one institution that suggest a causal relationship between the service or treatment and health outcomes.

If no credible scientific evidence is available, then standards that are based on physician specialty society recommendations or professional standards of care may be considered. UnitedHealthcare has the right to consult expert opinion in determining whether health care services are Medically Necessary. The decision to apply physician specialty society recommendations, the choice of expert, and the determination of when to use any such expert opinion, shall be determined by UnitedHealthcare.

UnitedHealthcare develops and maintains clinical policies that describe the generally accepted standards of medical practice scientific evidence, prevailing medical standards and clinical guidelines supporting UnitedHealthcare's determinations regarding specific services. These clinical policies (as developed by UnitedHealthcare and revised from time to time) are available to covered persons through www.myuhc.com or the telephone number on the member's ID card. They are also available to physicians and other health care professionals on UHCprovider.com (COC).

Short-Term Acute Care Facility: A facility or hospital that provides care to people with medical needs requiring short-term hospital stay in an acute or critical setting such as for recovery following a surgery, care following sudden sickness, injury, or flare-up of a chronic sickness (COC).

Sub-Acute Facility: A facility that provides intermediate care on short-term or long-term basis (COC).

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other policies and guidelines may apply.

Modifier	Location
Ambulance Modifiers Ambulance claims are billed with two of the following modifiers. The first modifier indicates the place of origin, and the second modifier indicates the destination. *Exception: QL must be billed in place of the origin/destination combination.	
D	Diagnostic or therapeutic site other than p or H when these are used as origin codes
E	Residential, domiciliary, custodial facility (other than 1819 facility)
G	Hospital-based ESRD facility
H	Hospital
I	Site of transfer (e.g., airport or helicopter pad) between modes of ambulance transport
J	Freestanding ESRD facility
N	Skilled nursing facility
P	Physician's office
QL*	Patient pronounced dead after ambulance called
R	Residence
S	Scene of accident or acute event
X	Intermediate stop at physician's office on way to hospital (destination code only) **Note**: Modifier X can only be used as a destination code in the second position of a modifier.

HCPCS Code	Description
Air Ambulance (Also refer to Air Ambulance Revenue Code 0545 below)	
A0430	Ambulance service, conventional air services, transport, one way (fixed wing)
A0431	Ambulance service, conventional air services, transport, one way (rotary wing)
A0435	Fixed wing air mileage, per statute mile
A0436	Rotary wing air mileage, per statute mile
S9960	Ambulance service, conventional air services, nonemergency transport, one way (fixed wing)
S9961	Ambulance service, conventional air service, nonemergency transport, one way (rotary wing)
T2007	Transportation waiting time, air ambulance and nonemergency vehicle, one-half (1/2) hour increments
Ground/Other Ambulance	
A0140	Nonemergency transport and air travel (private or commercial) intra- or interstate
A0225	Ambulance service, neonatal transport, base rate, emergency transport, one way
A0380	BLS mileage (per mile)
A0382	BLS routine disposable supplies
A0384	BLS specialized service disposable supplies; defibrillation (used by ALS ambulances and BLS ambulances in jurisdictions where defibrillation is permitted in BLS ambulances)
A0390	ALS milage (per mile)

HCPCS Code	Description
Ground/Other Ambulance	
A0392	ALS specialized service disposable supplies; defibrillation (to be used only in jurisdictions where defibrillation cannot be performed in BLS ambulances)
A0394	ALS specialized service disposable supplies; IV drug therapy
A0396	ALS specialized service disposable supplies; esophageal intubation
A0398	ALS routine disposable supplies
A0420	Ambulance waiting time (ALS or BLS), one-half (1/2) hour increments
A0422	Ambulance (ALS or BLS) oxygen and oxygen supplies, life sustaining situation
A0424	Extra ambulance attendant, ground (ALS or BLS) or air (fixed or rotary winged); (requires medical review)
A0425	Ground mileage, per statute mile
A0426	Ambulance service, advanced life support, nonemergency transport, level 1 (ALS 1)
A0427	Ambulance service, advanced life support, emergency transport, level 1 (ALS 1 emergency)
A0428	Ambulance service, basic life support, nonemergency transport (BLS)
A0429	Ambulance service, basic life support, emergency transport (BLS, emergency)
A0432	Paramedic intercept (PI), rural area, transport furnished by a volunteer ambulance company which is prohibited by state law from billing third-party payers
A0433	Advanced life support, level 2 (ALS 2)
A0434	Specialty care transport (SCT)
A0998	Ambulance response and treatment, no transport
S0207	Paramedic intercept, nonhospital based ALS service (nonvoluntary), nontransport
S0208	Paramedic intercept, hospital-based ALS service (nonvoluntary), nontransport

Revenue Code	Description
0540	Ambulance-General Classification
0541	Ambulance-Supplies
0542	Ambulance-Medical Transport
0543	Ambulance-Heart Mobile
0544	Ambulance-Oxygen
0545	Ambulance-Air Ambulance
0546	Ambulance-Neonatal Ambulance Services
0547	Ambulance-Pharmacy
0548	Ambulance-EKG Transmission
0549	Ambulance-Other Ambulance

Description of Services

Ambulance services are required when it is the only safe way to transport a member to the nearest hospital or other care facility due to the nature or severity of the injury or illness. Services may be provided via ground, air, or water. The mode of transportation is determined by the appropriate authorities (e.g., first responders, Emergency department physician).

Benefit Considerations

Refer to the federal, state, and contractual requirements for information regarding coverage, limitations, and exclusions that may supersede those listed below.

Non-Emergency Ambulance (Ground and Air)

Coverage includes non-Emergency ambulance transportation by a licensed ambulance service (either ground or Air Ambulance, as UnitedHealthcare determines appropriate) between facilities only when the transport meets one of the following:

- From an out-of-network hospital to the closest network hospital when Covered Health Care Services are required
- To the closest network hospital or facility that provides the required Covered Health Care Services that were not available at the original hospital or facility
- From a Short-Term Acute Care Facility to the closest network Long-Term Acute Care Facility (LTAC), network inpatient rehabilitation facility, or other network Sub-Acute Facility where the required Covered Health Care Services can be delivered

Prior Authorization Requirements for Non-Emergency Ambulance (Ground and Air)

Ground Ambulance

Certain plans may require prior authorization for non-Emergency ground ambulance transport. Refer to the federal, state, or contractual requirements.

Air Ambulance

Prior authorization is required for non-Emergency Air Ambulance transport.

Coverage Limitations and Exclusions

The following services are not eligible for coverage:

- Ambulance services from providers that are not properly licensed to be performing the ambulance services rendered
- Air Ambulance transportation that does not meet the covered indications in the Air Ambulance criteria listed above
- Ambulance transportation when other mode of transportation is appropriate; except as indicated under the Coverage Rationale section above, ambulance services when transportation by other means would not endanger the member's health are not covered.
- Ambulance transportation for member convenience or other miscellaneous reasons for member and/or family; examples include but are not limited to:
  - Member wants to be at a certain hospital or facility for personal/preference reasons
  - Member is going for a routine service and is medically able to use another mode of transportation

Clinical Evidence

Fritz et al. (2025) conducted a systematic review and meta-analysis to assess the effectiveness of helicopter emergency medical services (HEMS) vs that of ground emergency medical services (GEMS) in the survival of individuals with a severe traumatic brain injury (TBI), defined by a Glasgow Coma Scale (GCS) score of < 9 or a Head Abbreviated Injury Scale score of 3 or higher. Eligible studies included those with a comparison made for adults or children transported from the scene via HEMS or GEMS, with some interfacility transfers also included (less than half of the study population). All 21 studies were observational in nature, with a review of regional or national trauma databases (there was one randomized controlled trial terminated early due to substantial nonadherence). Almost all the studies excluded individuals who were in cardiac arrest at the scene. The results showed that there was statistically significant improved survival with HEMS transportation (odds ratio, 1.37; 95% CI, 15-28; number needed to treat, 19) in TBI. The results also showed an overall statistically significant favorability of HEMS for head injury despite high clinical heterogeneity. This may be due to advanced interventions such as transfusion and intubation, which are more likely with HEMS transportation. The authors concluded that within the limitations of the systematic review and meta-analysis, HEMS are associated with a lower mortality in individuals with TBI and head injury. These results are limited by confounding (including missing data), and selection bias exists due to the observational nature of the included studies.

Rhodes et al. (2023) conducted a retrospective study of the data from a single-center trauma registry on the clinical impact of prolonged HEMS travel times in a rural trauma system. Overall, 242 patients were included, with 87 transported by HEMS and 155 by rendezvous (enhanced dispatch during which GEMS meet HEMS for transport to the level I trauma center). The results showed a decline in the GCS and shock index ratio in the patients who arrived at the emergency department (ED) with prolonged transportation times despite similar injury patterns and severity. Full trauma activation time was doubled for patients arriving via rendezvous, and a more than one-third increase in patient deaths occurred. These results show the importance of helicopter autolaunch programs to take individuals directly to the nearest level I trauma center, avoiding rendezvous transportation in rural areas, and this research can also be expanded to include all

time-critical scenarios. This study is limited by potential data extraction errors and the fact that it represents a single trauma center experience, which may not be generalizable to other areas with potentially more trauma resources.

Kunte et al. (2021) conducted a retrospective study in patients transferred to a single comprehensive stroke center for stroke treatment and reviewed the emergency medical services (EMS) and medical records of 205 patient transfers who received tissue plasminogen activator (TPA), thrombectomy, or both to determine whether HEMS or GEMS were faster in both transfer circumstances. The study included 47 patients who were interhospital transfers by HEMS, 68 patients who were interhospital transfers by ground, 40 patients who were scene transfers by HEMS, and 50 patients who were scene transfers by ground. The authors reported that ground transfers had shorter alarm to EMS departure times (30 minutes vs 40 minutes) and that air transfers had shorter EMS departure to arrival times when normalized by transfer distance. They also found that in multivariate analyses, when controlling for TPA and mechanical thrombectomy, transfer GEMS had lower 90-day modified Rankin Scale (mRS) scores than transfer HEMS (indicating better functional outcomes), while scene HEMS had lower 90-day mRS scores than scene GEMS. The authors suspected that this may be due to the higher level of care available in a medical helicopter and the earlier recognition by EMS personnel of severe and treatable stroke syndromes. The authors concluded that transfer mode had no significant effect on functional outcome when controlling for TPA, thrombectomy, and National Institutes of Health Stroke Scale and that transfer efficiency depends on logistics prior to EMS arrival as well as the speed of travel, as total interhospital transfer times are faster for air transportation only when traveling more than 40 miles. The authors noted that the study is limited by the retrospective study design, small sample size, and inclusion of only those patients who received TPA and/or mechanical thrombectomy, as the study excluded futile transfers and untreated patients. They recommended larger, prospective studies to better assess the effects of transfer modality on treatment times and functional outcomes.

Stewart et al. (2021) conducted a retrospective cohort study of interfacility transfers of trauma patients from nontertiary trauma centers (NTCs; n = 106) to a tertiary trauma center (TTC; n = 3) by helicopter transport (HT) and ground transport (GT). The authors reviewed data from an inclusive statewide trauma registry for 9,880 patients to assess the association of HT on mortality at 72 hours and within the first 2 weeks of arrival at a TTC; then, they stratified the population by the distance between the NTC and the TTC into two groups, which were 21 to 90 miles and > 90 miles. The authors found that 34.7% (n = 3,424) of the study's eligible patients were transported to the TTC by HT and that these patients were slightly younger, more often male, and more frequently injured in a motor vehicle accident. They also found that HT patients were, on average, transferred from NTCs farther from the TTC and were more frequently injured in areas served by basic or intermediate GT services. The median times for arrival at the TTC from the NTC were 3.4 hours for HT and 4.5 hours for GT. The data also showed that the HT patients had a higher incidence of intubation, arrived with a systolic blood pressure (SBP) of < 90 mm Hg, or had a GCS score of < 10. The HT group also had 24.6% with Injury Severity Scores (ISSs) of 16 or higher vs 10.9% among the GT group and had higher percentages of patients with severe head injury (26.6% vs 17.9%) and chest injury (18.2% vs 9.6%) than the GT group. The authors concluded that only in patients transferred from an NTC < 90 miles from the receiving TTC was HT associated with a significantly decreased hazard of mortality in the first 72 hours and that there was no independent association observed between transport mode and 72-hour mortality in patients transferred from > 90 miles from a TTC. They found that many HT patients, particularly from the most distant NTCs, had minor injuries and normal vital signs at both the NTC and the TTC, suggesting that the decision to use HT was resource driven rather than clinical. The authors noted a few limitations of their study, including (1) bias and unmeasured factors associated with the retrospective design and (2) the lack of information on the level/experience of the care provider or available treatments at the NTC, which may have affected survival; additionally, the location of the HT and GT bases was not considered and might have influenced time to definitive care, and the data were limited regarding patient stability and care rendered in transit between the NTC and the TTC.

Gilliam et al. (2020) conducted a retrospective chart review in all adult nonburn trauma patients who arrived directly from the scene of an accident via air medical transport to one of two level I trauma centers in a single city. It was found that 21.7% of 1,042 patients (n = 226) were discharged within 24 hours of HT. The purpose of the study was to determine important characteristics of trauma individuals who arrive via HEMS and are discharged within 24 hours so that overtriage of trauma individuals can be reduced and HEMS can be used more efficiently. The authors reported that the majority (93.8%) were Caucasian, 71.7% were male, and 96.9% had experienced blunt trauma; the most common mechanisms of injury were motor vehicle accidents (44.7%) and falls (20.4%). The study showed that the early-discharge patients rarely had prehospital hypotension, with an SBP of less than 90 mm Hg; rarely received more than 1 liter of crystalloids; and were typically under 70 years of age, with only 1.8% (n = 4) aged 70 years or older. The authors noted that the limitations of their study include the retrospective cohort study design and possibility of documentation errors by EMS providers; additionally, the impact of undertriage in the cohort could not be considered due to the lack of access to a regional trauma database for the study. The authors recommended future research to validate prehospital triage factors in a prospective manner to reduce overtriage to an acceptable level while not increasing undertriage.

Lau et al. (2018) conducted a prospective cohort study in 102 consecutive participants in a tertiary hospital to compare the time delays experienced by participants with stroke arriving in the ED by ambulance vs those experienced by non-ambulance users. The authors compared three phases of the episode of illness: phase 1 was the time between stroke onset and calling for help; phase 2 was the time between calling for help and arriving at the ED; and phase 3 was the time between arriving at the ED and receiving medical assistance. The authors noted that 47.1% of the participants (n = 48) arrived by ambulance. After comparing participant demographic data, including age, sex, and comorbidities, between the ambulance user group and the nonuser group, the authors found no statistical difference between the groups, other than hypertension. They also determined that the percentage of participants with stroke arriving in the ED within the therapeutic window was significantly higher for ambulance users than for nonusers (64.6% vs 29.6%) and that for all three phases, the median times were significantly shorter for ambulance users (77.5 minutes in phase 1, 32 minutes in phase 2, and 8 minutes in phase 3) than for nonusers (720 minutes, 44.5 minutes, and 15 minutes, respectively). They noted that 12 of the non-ambulance users visited a general practitioner before going to the ED, and only one of them arrived within the therapeutic window to receive intravenous TPA compared with 15 of the 42 participants in the nonusers group. Limitations noted by the authors include the small sample size; use of a single center; and dependence on participant memory to recall the time of stroke onset, time of calling for help, and time of arrival at the ED. The authors concluded that the means of transport to the ED is important for effective stroke treatment and that individuals with stroke who arrive via an ambulance are more likely to be treated effectively with TPA within the therapeutic window.

Funder et al. (2017) investigated the effect of transport mode on mortality, disability, and labor market affiliation in a prospective, single-center, observational study in 1,608 participants admitted to a stroke unit in a community with a population of 820,000. The study included 5.5 years of follow-up at a facility that implemented a physician-staffed HEMS system and that also had two levels of GT available: (1) GEMS that was staffed with two EMS providers and (2) a mobile emergency care unit staffed by a physician or a certified nurse anesthetist and a paramedic. Based on results of an initial study of HEMS, the dispatch protocol for the HEMS was changed in the third year of the enrollment period for the study to allocate HEMS only to the most distant parts of the catchment area. The primary outcome of the study was the mortality rate after admission to the stroke unit, and the secondary outcomes were 30-day mortality, mRS score at 3 months, time to involuntary early retirement, prevalence of reduced work ability after 2 years, and percentage of time on public assistance during the first 2 years after admission to the stroke center. There were 702 participants (66%) diagnosed with stroke [64% (587/916) of GEMS participants and 76% (115/152) of HEMS participants]. Thrombolysis was performed in 36% of GEMS (n = 330) and 38% of HEMS participants. The authors reported that mortality rates were 9.04 per 100 person-years at risk (PYR) in GEMS participants and 9.71 per 100 PYR in HEMS overall and that the incidence rate of involuntary early retirement was 6.97 per 100 PYR in GEMS participants and 7.58 per 100 PYR in HEMS participants. The work ability after 2 years and time on public assistance did not differ between groups, and the authors did not find any significant difference in mean mRS score after 3 months (2.21 GEMS vs 2.09 HEMS). The authors offered several limitations of the study, including that the HEMS participants generally came from more distant parts of the catchment area and that time from contact with the triaging neurologist to arrival was longer in the HEMS participants. They also noted that HEMS is dispatched secondarily to a ground unit on site and that their process showed improvements in time between contact with the triaging neurologist and arrival for both groups, as did the overall transport time for getting participants to their facility. The authors concluded that HT for participants with stroke was not associated with reduced mortality or disability and did not improve labor market affiliation compared with participants transported by GEMS.

Galvagno et al. (2015) conducted a Cochrane Database systematic review of 38 published nonrandomized controlled trials to determine if HEMS transport correlated with improved morbidity and mortality compared with GEMS for adults with an ISS of at least 15 (or an equivalent measure for injury severity). Four of the studies involved interfacility transfer to a higher-level trauma center by HEMS compared with GEMS. The authors were not able to find any randomized controlled trials to include in the review. They reviewed data from 282,258 people with an ISS of at least 15 from 28 of the 35 studies to calculate unadjusted mortality; however, an accurate estimate of overall effect could not be determined due to considerable heterogeneity. When they reviewed data from six trials that focused on TBI, the authors did not find a decreased risk of death with HEMS; however, the four studies that evaluated interfacility transfer did allude to a small to moderate benefit when HEMS was used to transfer individuals to a higher-level trauma center for care. The authors also reported on 21 studies that used multivariate regression to adjust for confounding and noted that the results were varied, with some studies showing a benefit of HEMS, while others did not. The authors noted that their search did not find any studies evaluating the secondary outcome, morbidity, as measured by quality-adjusted life-years and disability-adjusted life-years. They noted that the overall quality of evidence was low due to the nonrandomized design of the studies and that all the studies had an unclear or high level of selection bias. The authors concluded that an accurate composite estimate of the benefit of HEMS could not be determined due to the methodological weaknesses of available literature and the heterogeneity of effects and study methodologies. They recommended large, multicenter studies to help determine estimates of treatment effects.

Boothroyd et al. (2014) conducted a systematic evaluation of care and outcomes of ST elevation myocardial infarction (STEMI) in 1,956 individuals treated at one of 82 acute care hospitals in Quebec and examined whether a previously documented association between ambulance use and outcomes remained present after adjusting for important confounding factors. The authors found that 62.5% of the individuals (n = 122) arrived via ambulance and that these individuals were typically older, female, more likely to have had a previous myocardial infarction, and more likely to have comorbidities, low systolic pressure, abnormal heart rate, and a higher Thrombolysis in Myocardial Infarction risk index at presentation compared with individuals who did not arrive by ambulance. They also found that ambulance users were less likely to receive fibrinolysis (12.6% vs 19.2%) or to be sent for primary angioplasty (78.5% vs 83.2% for non-ambulance users), although treatment delays were shorter for those who arrived via ambulance. Mortality (in hospital, at 30 days, and at 1 year) was significantly greater in ambulance users (9.1%, 12.4%, and 18.7%, respectively) than in nonusers (2.9%, 3.7%, and 7.1%, respectively). The authors concluded that ambulance users with STEMI were older and sicker than nonusers and that mortality in users was substantially greater after adjusting for clinical risk factors despite having received faster treatment perfusion overall.

Clinical Practice Guidelines

National Expert Panel on Field Triage

In 2022, the National Expert Panel on Field Triage (Newgard et al., 2022) updated the evidence-based field triage guidelines. These are intended for civilian trauma systems (not mass casualties or in-hospital trauma team responses) in patients for whom maximal resuscitative care is appropriate. This guideline breaks the field triage process down into four categories, with criteria for assessing high- and moderate-risk scenarios for serious injury:

- Injury Patterns
- Mental Status and Vital Signs
- Mechanism of Injury Criteria
- Emergency Medical Services Judgment

Criteria for high and moderate risk for serious injury:

High risk

- Injury Patterns
  - Penetrating injuries to head, neck, torso, and proximal extremities
  - Skull deformity, suspected skull fracture
  - Suspected spinal injury with new motor or sensory loss
  - Chest wall instability, deformity, or suspected flail chest
  - Suspected pelvic fracture
  - Crushed, degloved, mangled, or pulseless extremity
  - Amputation proximal to wrist or ankle
  - Active bleeding requiring a tourniquet or wound packing with continuous pressure
- Mental Status and Vital Signs
  - All patients
    - Unable to follow commands (motor GCS < 6)
    - Respiratory rate of < 10 or > 29 breaths per minute
    - Respiratory distress or need for respiratory support
    - Room air pulse oximetry of < 90
  - Age 0 to 9 years
    - SBP of < 70 mm Hg + (2 × age in years)
  - Age 10 to 64 years
    - SBP of < 90 mm Hg; or
    - Heart rate greater than SBP
  - Age ≥ 65 years
    - SBP of < 110 mm Hg; or
    - Heart rate greater than SBP

Moderate risk

- Mechanism of Injury
  - High-risk auto crash (partial or complete ejection, significant intrusion, need for extrication, death of passenger, child unrestrained or in unsecured car seat, or vehicle telemetry data are consistent with severe injury)
  - Rider is separated from mode of transport, with significant impact (e.g., motorcycle, ATV, horse)
  - Pedestrian or bike rider thrown, run over, or with significant impact
  - Fall from a height of > 10 feet

- Emergency Medical Services Judgment should consider risk factors such as low-level falls in children and older patients, use of anticoagulants, suspected child abuse, pregnancy, burns, and high-resource health needs

Regarding transportation, the guidelines state that when feasible, patients meeting the high-risk criteria should be triaged to the highest-level trauma center within the region, including consideration of air medical services. Injured patients meeting the physiological criteria have lower mortality when cared for in level I trauma centers. Air medical services may offer advanced care clinicians, access to additional interventions, and more rapid transport, but there is not enough evidence to make specific recommendations regarding transport times and when air medical services should be activated.

National Association of EMS Physicians (NAEMSP)/American Academy of Pediatrics (AAP)/American College of Surgeons Committee on Trauma (ACS COT)/Emergency Medical Services for Children Innovation and Improvement Center (EIIC)/Emergency Nurses Association (ENA)/National Association of State EMS Officials (NASEMSO)/ National Association of Emergency Medical Technicians (NAEMT)

In an updated joint position statement coauthored by the NAEMSP, AAP, ACS COT, EIIC, ENA, and NASEMSO and endorsed by the NAEMT, Lyng et al. (2021b) states that the delivery of high-quality and effective EMS care is dependent on several factors, including but not limited to:

- Credentialed providers who have demonstrated appropriate knowledge, ability, psychomotor skills, and critical thinking
- Clinical protocols or guidelines supported by the best-available scientific evidence
- Equipment and supplies necessary to deliver appropriate care, as indicated by clinical protocols/guidelines for patients of all ages

The purpose of this statement is to (1) review and revise the 2014 version of the joint position statement to include a review of equipment lists established by individual state/territory rules and statutes for all 56 U.S. states and territories, (2) establish recommended equipment standards to build consistency across the EMS system of care, and (3) facilitate advances in the delivery of quality and cost-effective EMS care. The statement also establishes that EMS agencies should include, in their routine quality assurance practices, efforts to assess that:

- Their EMS providers are outfitted with all necessary equipment for them to perform clinical care
- All equipment and supplies undergo appropriate preventive maintenance and routine function checks
- Malfunctioning or missing equipment issues are quickly addressed to preserve readiness to respond and provide patient care continuously

The statement includes a list of required equipment for basic life support emergency ground ambulances and advanced life support emergency ground ambulances, a list of optional equipment that should be used based on local needs and resources, and a list of optional medications.

National Association of EMS Physicians (NAEMSP)/American College of Emergency Physicians (ACEP)/Air Medical Physician Association (AMPA)

In an updated joint position statement and resource document from the NAEMSP, ACEP, and AMPA, Lyng et al. (2021a) states that air medical services must be used in a clinically effective, safe, and fiscally responsible manner. The statement indicates that emergency air ambulance transport should only be used for one of three primary patient-centered goals:

- Initiation or continuation of advanced or specialty care that is not otherwise available locally from hospital EMS or GEMS resources;
- Expedited delivery of a patient to definitive care for time-sensitive intervention; and/or
- Extraction, evacuation, and/or rescue from environments that are difficult to access due to geography, weather, remote location, distance, and other factors that limit timely access to a patient or GEMS.

The statement also indicates that GEMS transport is preferred to air transport if a patient's clinical need for critical care expertise and timely transport to definitive care can be met with GEMS resources and that GEMS clinicians on scene should be empowered and encouraged to cancel air medical services response if/when it is determined that continuing that response would:

- Place the air crew and aircraft at undue risk;
- Place ground crews at undue risk; and/or
- Not align with at least one of the three primary patient-centered goals noted above.

Air Medical Physician Association (AMPA)

In a 2012 revised position statement, AMPA supports the following for acute coronary syndrome and STEMI:

- The use of air medical transport for patients with acute coronary syndrome requiring or potentially requiring urgent/time-sensitive intervention not available at the sending facility.
- The use of air medical transport for patients with STEMI directly from the scene to percutaneous coronary intervention-capable hospitals as part of a system of prehospital STEMI care.

AMPA acknowledges that scene air medical transport of patients with STEMI occurs routinely and supports that the medical necessity is determined by the requesting authorized provider, based on regional policy and their best medical judgment at the time of the request for transport. AMPA supports that a receiving physician or the transport program medical director may complete the Certificate of Medical Necessity on scene transports.

In a 2004 position statement, updated in 2012, AMPA supports the use of rapid medical transport for patients with acute stroke syndromes requiring or potentially requiring urgent/time-sensitive diagnosis and intervention to stroke treatment centers.

AMPA acknowledges that scene medical transport of acute stroke syndromes occurs routinely and supports the standardized field identification of acute stroke syndromes by trained personnel, based on regional and national policy and their best medical judgment at the time of the request for medical transport, and that this method of determination is sufficient to certify the medical necessity of the medical transport.

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Ambulance transportation is a service and therefore not subject to regulation by the FDA.

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Policy History/Revision Information

Date	Summary of Changes
06/01/2026	**Definitions** • Added definition of “Independent Freestanding Emergency Department” **Supporting Information** • Updated *Clinical Evidence* and *References* sections to reflect the most current information • Archived previous policy version CS003.S

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state or contractual requirements for benefit plan coverage govern. Before using this guideline, check the federal, state or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its policies and guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

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