

HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

1B GENERAL ASSESSMENT and CARE

PATIENT CARE GOALS

- Conduct an appropriate assessment of the patient, scene, and circumstances to determine the best course of action for managing the medical care and transport needs.¹
- Ensure the safety of patients and all personnel throughout all phases of the incident.²
- Identify and manage immediate or potential life threats, and maintain adequate oxygenation, ventilation, and perfusion.
- Minimize on-scene time for patients with life-threatening conditions.
- Identify and manage any non-life-threatening conditions.
- Identify and accommodate other contributing factors of the response, including psychological, social, legal, and patient comfort issues.
- Provide safe transportation to the most appropriate receiving medical facility.
- Transfer the patient and provide pertinent information to the receiving care providers using a structured form of communication.
- Complete reporting and documentation of patient care and other services.

EMT

En Route to Scene

1. Following initial dispatch, use all available information to continuously develop awareness of the entire situation surrounding the incident. Throughout all phases of the response, use a team approach to plan and implement the most appropriate actions for managing the incident.¹

At Scene

2. On arrival at the scene, size up the incident and manage scene safety needs.² Perform triage for level of urgency and multiple patients. Identify if additional resources, including law enforcement, rescue, and higher-level intercept, are needed.
3. Take appropriate body-substance isolation (BSI) precautions.
4. Form an initial impression of the patient's condition.
 - Consider possible life threats based on the chief complaint, history, and clinical presentation.
 - Identify mechanisms of injury. Stabilize the patient's cervical spine as necessary.
5. Assess the patient's responsiveness (AVPU).³
6. Assess adequacy of airway, breathing, and circulation (ABCs), and treat immediately life threatening conditions.
 - Assure airway patency through positioning, suctioning, manual management techniques for foreign body airway obstruction, and/or use of airway adjuncts (i.e., nasopharyngeal or oropharyngeal airways, or supraglottic airway).⁴
 - Ventilate or assist ventilations of patients with absent or inadequate respirations. Ensure adequate oxygenation by providing patients with oxygen, if needed.⁵

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- For cardiopulmonary arrest, perform CPR and defibrillate as indicated per guidelines.
 - Manage injuries that compromise ventilations (i.e., tension pneumothorax, sucking chest wounds, flail chest).
 - Control life-threatening hemorrhage.
7. Assess Apparent Life Threatening Events (ALTE) in the infant population. These patients should be transported to a hospital for evaluation.⁶
 8. For patient's less than 14 years of age or puberty (if age unknown), when actual weight is unknown, use the Handtevy Pediatric Tape to obtain a length-based estimate of weight (in kilograms) to calculate weight-based medication doses or to determine the size of equipment.
 - Always use the tape determined weight estimate and corresponding color zone for equipment size selection regardless of the patient's body type.

At Scene or During Transport

9. Continue patient assessment, with emphasis on identifying and mitigating potential life threats. For emergent patients, complete this assessment en route to the hospital.
 - Utilize history, detailed physical exam, vital signs, Glasgow Coma Scale (GCS), capnography, pulse oximetry, blood glucose level, and other parameters as appropriate, to form a provider impression as a basis for further care.^{7,8}
 - For patients not requiring immediate transport, provide focused assessment and treatment of localized injuries and other non-life threatening problems.
 - Obtain the patient's medications and assess the patient and scene for other information relevant to the patient's identity, medical history, and clinical condition.⁹
10. Alert receiving facility about emergent patients (i.e., major trauma, STEMI, stroke, cardiac arrest) as soon as possible.
11. Establish vascular access (IV, IO), under paramedic supervision, for actual or anticipated need for fluid therapy or administration of medications¹⁰. EMTs can monitor maintenance drips (normal saline, D5W, or lactated ringers) during transport, at rates not more than 150 mL/hour.
12. Provide additional treatments as necessary according to specific patient care guidelines. Contact medical control for assistance when needed or required by the guidelines or if deviation from the guidelines is necessary.
13. Provide for patient comfort. Position the patient as needed to improve comfort and aid in treatment of respiratory, cardiovascular, or other compromise.¹¹
14. Following completion of the initial patient assessment and treatment, continue ongoing reassessment to monitor changes in condition and response to treatments. Starting with the ABCs, reassess the patient after any change in clinical status.

Transport

15. Transport patients with emergent or life-threatening conditions (i.e., major trauma, STEMI, stroke) as soon as possible.
16. Provide pertinent patient information to EMRCC via radio or telephone. When possible, contact EMRCC early to allow the receiving hospital adequate time to prepare to receive the patient.

At Destination

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17. At destination, ensure the patient is transferred to and accepted by the receiving staff, and that pertinent patient information is provided to the receiving personnel. Complete the ePCR as soon as possible to ensure that it is transmitted to the receiving facility in a timely manner.

PARAMEDIC

At Scene

The following should be taken into consideration in addition to the “at scene” points listed above:

1. A reasonable attempt should be made to ensure that patients are stable prior to beginning transport. This applies primarily to a patient in a residence or building and prior to moving them to the ambulance. To facilitate this all providers should:
 - Address airway and ventilation needs with early application of oxygen, CPAP, DFAM or surgical airway if significant potential for deterioration exists.
 - Obtain ECG rhythm strip and/or 12-lead ECG^{12,13}
 - Continuous ECG monitoring is required of any patient with chest pain, respiratory distress, or other signs/symptoms indicating possible serious illness or injury.
 - Make at least one attempt to obtain vascular access on all patients determined to require the administration of medications/fluids en route to the hospital. A saline lock is sufficient until the patient is placed in the ambulance.
 - Begin treatment of shock with fluids and/or vasopressors.
 - Treat any unstable cardiac dysrhythmia.
2. For patients receiving medication infusion(s), ensure at least one additional drug-free IV line.¹⁴

DOCUMENTATION KEY POINTS

- Chief complaint in the patient’s own words, if possible. Refrain from the inclusion of profane wording.
- Initial assessment findings (including pertinent negatives) and provider impression.⁸
- Periodic vital signs, ECG recordings, SpO₂ and EtCO₂ readings, and other ongoing assessments.^{7,9}
- Treatments and services provided to the patient, including rationale, medication dosages, energy settings for electrical therapy, time(s), number of attempts, personnel involved, problems encountered, and patient response.
- Orders and direction provided by Medical Control. Document the name of the Medical Control physician. If there was deviation from a guideline and Medical Control was not contacted, document why no contact was made.
- Handtevy Pediatric Tape weight estimate, if medications were given or equipment used based off of this estimate.
- Medications (including OTC and herbal supplements) taken by the patient prior to transport must be documented. If the medications are unknown, this should be documented.
- Initial and ongoing assessments, monitoring, interventions, patient responses, and complications (if any) encountered.

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NOTES

¹ **Situational awareness:** Consider safety (e.g., hazards, environmental factors, patient weight and other lifting/moving factors, transport conditions), available personnel and resources, urgency of the patient's condition, availability of treatment options, treatment results, family and other social factors, capabilities and status of potential receiving facilities, time and distance to definitive care, newly developing problems, other situation/condition changes, and all other factors relevant to the incident.

Teamwork involves establishment of leadership and team member roles and should include dispatch, first responders, law enforcement, receiving facility staff, and all other personnel involved in the incident. Thoroughly communicate treatments, observations, and intentions among all personnel caring for the patient, and ensure cross-monitoring and mutual support to provide optimal patient care and prevent errors.

² As part of **scene safety**, ensure that a patient suspected of having a weapon has been searched and cleared of any weapons, with assistance obtained from law enforcement, as needed. Use caution especially for patients with behavioral emergencies, alcohol or drug intoxication, or involvement in assaults or domestic disturbances/violence.

³ **Responsiveness:** Use the AVPU scale to determine if the patient is **alert (A)**, responds to **verbal (V)** or **painful (P)** stimuli, or is **unresponsive (U)**.

⁴ **Airway:** Determine if airway obstruction is partial (with adequate or inadequate air exchange) or complete, and consider possible causes (e.g., tongue, foreign body, edema, traumatic injury). Treat partial foreign-body obstruction with poor air exchange as a complete obstruction.

⁵ **Ventilation and oxygenation:** Monitor pulse oximetry and end-tidal CO₂, and adjust ventilations and supplemental O₂ delivery according to symptoms and measured EtCO₂ and SpO₂. If possible, maintain EtCO₂ at 35 to 45 mmHg and SpO₂ between 94 and 98%. In general, make attempts to avoid SpO₂ of 100%. Use immediate EtCO₂ monitoring to confirm placement of advanced airways (e.g., endotracheal tube, supraglottic airway, surgical airways).

⁶ **Apparent Life Threatening Events (ALTE):** This syndrome predominantly affects infants less than 1 years of age. It is characterized by symptoms in which the infant exhibits some combination of apnea, change in color, change in muscle tone, unexplained coughing or gagging. The infant may recover quickly only to have the symptoms occur again. These infants should be evaluated at a hospital.

⁷ **Vital signs:** Record at least two sets of vital signs for unscheduled transports as well as treat and non-transport patients, including the vital signs at initial assessment and at the time of transfer of care or release. Record additional vital signs periodically as determined by the patient's clinical picture (every 10 minutes or less for emergent and critical-care level patients), and before and after any hemodynamic-altering treatments (including dosage changes of any hemodynamic-altering medications). Scheduled interfacility transfers of stable patients for clinic appointments or returns to lower levels of care following clinic visits or outpatient treatments, may not require assessment and documentation of more than one set of vital signs. Scheduled interfacility transports to similar or higher level of care require a minimum of two sets of vital signs if stable and more frequently as indicated above.

⁸ **Provider impression** should be considered as a "working theory" of the patient's problems, to be managed using the appropriate patient care guidelines.

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- ⁹ **Patient information:** In addition to medical data, obtain the patient's name, date of birth, and other personal information that will be needed by the receiving hospital for admission and access to patient records. Also, if the patient will be unable to provide information, attempt to obtain the patient's weight and family contact information prior to transporting. Do not allow information gathering to delay transport of urgent patients.
- ¹⁰ **Intraosseous (IO) access:** Perform IO cannulation only when the patient's clinical condition requires immediate vascular access for essential treatments (e.g., fluid resuscitation, medications). BLS providers should perform IO cannulation only on unresponsive patients.
- ¹¹ **Comfort and positioning:** Ensure patient warmth. Provide pain management (e.g., injury immobilization, careful patient movement and transport, administration of analgesics by ALS providers) as needed. Consider using Fowler's or sitting position for patients with respiratory distress.
- ¹² EMTs who are trained to do so may place ECG leads on a patient's chest with paramedic supervision.
- ¹³ **ECG documentation** should be recorded for all rhythm interpretations, treatment decisions, and changes in the patient's clinical condition.
- ¹⁴ Unless contraindications exist, maintenance fluid for pediatric patients should contain a source of dextrose on transports longer than 30 minutes. This is important especially for pediatric patients 5 years of age and under. Obtain dextrose containing maintenance fluids from sending facilities if the transport is going to be 30 minutes or longer. Contact medical control for any questions regarding pediatric maintenance fluid needs.