Purpose:

Provide guidance for assigning MedEvac transportation resources to transfer requests based on patient condition, including those whom should be preferentially transported via Helicopter EMS (HEMS), when available

Policy Statement:

- This serves as a guideline to ideal minimal transport personnel configurations.
- This guideline does NOT prohibit any particular personnel configuration from transporting any patient who, in the judgment of the sending physician AND transporting personnel, is best served by a more rapid transport rather than awaiting an ideal transport provider configuration.
- Questions or concerns regarding appropriate crew configuration for a particular patient should be discussed with the Administrator on call and/or Medical Consultation Physician.

Definitions:

Provider Configurations for Transports Definitions:

A. BLS Inter-facility Transports: Two providers who are licensed and certified according to state and/or national requirements as an Emergency Medical Technician (EMT)or Advanced Emergency Medical Technician (AEMT).
B. ALS Intercept: An ALS Intercept includes either a Paramedic, Critical Care Paramedic, or Critical Care Transport Nurse
C. Single Provider ALS Inter-facility Transports: Two providers who are licensed and certified according to state and/or national requirements. A minimum of one provider must be a Paramedic, Critical Care Paramedic, or Critical Care Transport Nurse. The second provider is an EMT/AEMT.
D. Dual Provider ALS Inter-facility Transports: Two providers who are licensed and certified according to state and/or national requirements. A minimum of one Paramedic, Critical Care Paramedic, or Critical Care Transport Nurse who provides direct patient care in the patient compartment during transport and an additional Paramedic, Critical Care Paramedic, or Critical Care Transport Nurse who serve as the driver during a transport.
E. Dual Provider Critical Care Interfacility Transports: Three associates who are licensed and certified according to state and/or national requirements. A minimum of one personnel that is a Critical Care Paramedic or Critical Care Transport Nurse and an additional Paramedic, Critical Care Paramedic, or Critical Care Transport Nurse who provides direct patient care plus additional personnel who serve as the driver or pilot during a transport

F. Specialty Care Transports: Transports involving care provided by a combination of MedEvac Personnel and other clinical personnel providing additional patient care

Policy:

Patient Transfers Appropriate for BLS Transport

- Patient is being transported from a hospital to a home location (private residence, long term care facility) at time of discharge.
- Patient may have capped IV access or TKO fluids but no active IV infusions.
    - AEMT may transport patients with non-medicated maintenance fluids
- Patient may have self-managed medical devices such a continuous infusion pump

- No expectation that the patient will need medication administration above the EMT or AEMT state-specific scope of practice during transport
- Patient does not have a current order for cardiac or telemetry monitoring
    - A cardiac monitor may be utilized during transport for heart rate monitoring by EMT (within the EMT scope of practice). Patients with a hospital order for cardiac monitoring/telemetry or requiring rhythm interpretation must be monitored by a Paramedic or Nurse

Patient Transfers Appropriate for Single ALS Transport

- Airway/ventilation
    - Advanced airway (supraglottic, endotracheal, surgical) in place that has been stable or improving in the 60 minutes preceding transport initiation (departure from sending facility)
    - NIPPV dependent patient that has been stable or improving in the 60 minutes preceding transport initiation (departure from sending facility)
- Cardiovascular/Circulation
    - Blood/blood products for non-hemodynamic stability indications
    - Ongoing infusions for heart rate or blood pressure control
- Infusion Maintenance / Medication Administration
    - Antibiotic Administration
    - Medicated IV Fluids (magnesium, calcium, potassium)
    - Ongoing management of allergic reaction, pain, nausea/vomiting
- Neurological
    - Seizures not expected to require recurrent administration of sedating anticonvulsant medication(s)
- Obstetrics
    - Pregnant patients being transported for non-OB related concerns
    - Patients requiring transport with no reasonable expectation for delivery during transport, must not be receiving tocolytics

Patient Transfers Appropriate for Dual ALS Transport

- Airway/ventilation
    - NIPPV dependent that has required increased titration of FiO2 or modification of pressures in the 60 minutes preceding transport initiation (departure from sending facility) or expected during transport .
        - Serves as a marker of potential need for invasive airway management.
    - Patient with potential respiratory failure.
- Neurological
    - Patients with evidence of expected potential for declining mental status and, therefore, potential need for invasive airway management.
    - Seizures expected to require recurrent administration of sedative anticonvulsant medication(s) and therefore potential need for invasive airway management.

Patient Transfers needing Critical Care Configuration

- Airway/ventilation
    - Patients needing prone positioning

- Cardiovascular/Circulation
    - Hemodynamically Unstable Patients
        - Patients requiring Multiple vasopressors or Multiple Blood product administrations for hemodynamic support
        - Ongoing hypotension or tachycardia or symptomatic bradycardia despite

interventions
        - Patients with hypertensive emergencies not controlled prior to transport
    - Trans-venous/epicardial pacing maintenance / troubleshooting
- Obstetrics
    - Patients receiving tocolytics
    - Concerns for potential delivery within the time frame of transport
- Cardiovascular/Circulation
    - Intra-Aortic Balloon Pump (IABP)/Impella
        - May require additional hospital staff to accompany patient during transport, see Cardiac Specialty Transport for additional information
    - Acute/complicated Ventricular Assist Device (VAD) management
        - Patients with functional VAD in place and on routine settings do NOT require a critical or intensive care level crew
    - Extracorporeal Membrane Oxygenation (ECMO)
        - Requires additional hospital staff to accompany patient during transport, see Cardiac Specialty Transport for additional information
    - Swan-Ganz catheter monitoring
- Neurologic
    - Patients with Intracranial pressure monitoring

Specialty Care Transports: Prior to any transport, it is the responsibility of the MedEvac Transport crew to brief any ride-along passengers on the safety standards established by Aspirus

- **NICU Transports:** Minimum of 2 MedEvac personnel with at least one ALS Practitioner in addition to AWH NICU Transport Team (configuration determined by NICU). See NICU Specialty Transport Requests and Specialty Crew Configurations Policy

- **MedEvac Transport Supported by Hospital Personnel:** MedEvac personnel are primary care providers with focal support from sending hospital personnel. Sending Hospital Personnel are under the medical oversight of the sending hospital physician or equivalent.

    - Perfusionist managing IABP or Impella during a transport. See MedEvac-Cardiac Specialty Transport Policy

    - OB Nurse or other specialty nurse providing specialty care during transport

    - ED Nurse, ED Tech/Paramedic, Respiratory Therapist, or similar personnel providing additional assistance during a transport of a critical or complex patient

- **Shuttle Transport:** 2 MedEvac personnel supporting the movement of a patient in the care of self-contained specialty transport team such as between a hospital and airport.

Helicopter Utilization

Dispatch will preferentially assign HEMS (when available) if any of the criteria below are met unless sending physician speaks with AOC and/or Medical Director to approve ground transport

- Time from sending to receiving hospital greater than 2.5 hours via ground transport for critical care transport
- Time from sending to receiving hospital greater than 1 hour via ground transport or HEMS has clear time advantage over ground and patient has one of the following conditions
    - Multiple infusions or multiple blood products
    - Critical care support services are not available with ground transport (critical care/intensive

care configuration not available in a timely manner)
- Time-critical conditions including but not limited to:
    - STEMI
    - Patient undergoing emergent or urgent intervention at the receiving hospital
        - Examples: surgery, pacemaker placement, vascular thrombolysis
    - Stroke needing intervention, needing TPA or have been administered TPA
    - Unstable Trauma patients meeting Red Criteria of National Guideline for the Field Triage of Injured Patients (or patient accepted as highest-level trauma activation at Level 1 or 2 trauma center)
        - Injury Patterns
            - Penetrating injuries to the 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
            - Suspected fracture of two or more proximal long bones
            - 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 & Vital Signs
            - All Patients
                - Unable to follow commands (motor GCS < 6)
                - RR < 10 or > 29 breaths/min
                - Respiratory distress or need for respiratory support
                - Room-air pulse oximetry < 90%
            - Age 0–9 years: SBP less than 70mm Hg + (2 x age years)
            - Age 10–64 years: SBP less than 90 mmHg or HR greater than SBP
            - Age greater than/equal to 65 years: SBP less than 110 mmHg or HR greater than SBP
    - Acute pulmonary failure and/or requirement for advanced pulmonary care
    - GI hemorrhage with vascular compromise
    - Organ transplant recipient – organ available
    - Requires continuous IV vasoactive medications or mechanical ventricular device assist to maintain cardiac output (Intra-Aortic Balloon Pump (IABP), acute/complicated Ventricular Assist Device (VAD) management)
    - Severe poisoning/overdose
    - Swan-Ganz catheter monitoring
    - Intracranial pressure monitoring

Procedure:

- Physician Connect Line/MedEvac Dispatch obtains clarifying information to determine need for BLS, Single ALS, Dual ALS, or Critical Care staffing
- Dispatch assigns the most appropriate transport crew based on the needs of the patient and available personnel
- Once assigned and en route, if the crew needs additional information to ensure proper crew configuration, the crew should discuss patient information with the Physician Connect Line Nurse involved in the transfer process

- If additional information is needed, the sending facility should be contacted for further discussions about the patient's condition

Related Policy:

MedEvac-Cardiac Specialty Transport Policy

MedEvac Scope of Service Policy

NICU Specialty Transport Requests and Specialty Crew Configurations Policy