**AR 5-402**

**ADMINISTRATIVE REQUIREMENT MANUAL**

**EFFECTIVE DATE**: June 16, 2025 **AUTHORIZATION**: Susan Lewis, Director

**TITLE**: Advanced Life Support (ALS) Equipment List

**SUPERSEDES:** June 1, 2022

1. **REGULATORY AUTHORITY:** 105 CMR 170.455, 170.460, 170.470
2. **AUTHORIZED EQUIPMENT:** Ambulance services must carry equipment and medications as required by the Statewide Treatment Protocols. Ambulance services should not equip ambulances with equipment that is outside of scope of practice of its EMT employees, as defined by the Protocols, or outside of the service’s level of licensure.
3. **PERFORMANCE STANDARDS**: All equipment must be designed and constructed to meet medical performance objectives and must not endanger patients.
4. **MAINTENANCE**: All equipment and supplies must be maintained and used according to manufacturers’ specifications, including but not limited to, for storage, expiration date and replacement. Services must keep records of preventive maintenance and repairs for all equipment, including service‐level and third‐party inspection and maintenance records.
5. **SPECIFICATIONS:** All equipment must be latex free. Disposable is preferred, unless otherwise specified.

**General Principles**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **#** | **DESCRIPTION** | **MIN. SIZE** | **TOTAL QUANTITY** | **LEVEL** |
| **PER ITEM** | AEMT | Paramedic |
|  |
| **Advanced** | 1.1 | Supraglottic Airway | Sizes | 1 each | AEMT | Paramedic |
| **Airway** |  |  | covering all |  |  |  |
| **Management** |  |  | patients |  |  |  |
| **Kit** |  |  | and weight |  |  |  |
|  |  |  | ranges |  |  |  |
|  | 1.2 | Endotracheal Tubes (sterile, | 2.0 2.5 | 2 each | ‐ | Paramedic |
|  |  | disposable only) | 3.0 3.5 |  |  |  |
|  |  |  | 4.0 4.5 |  |  |  |
|  |  |  | 5.0 5.5 |  |  |  |
|  |  |  | 6.0 6.5 |  |  |  |
|  |  |  | 7.0 7.5 |  |  |  |
|  |  |  | 8.0 8.5 |  |  |  |
|  |  |  | 9.0 |  |  |  |
|  | 1.3 | Laryngoscope blades (must be | Curve‐2 | 1 each | ‐ | Paramedic |
|  |  | appropriate for specific device | Curve‐3 |  |  |  |
|  |  | and individually wrapped; must | Curve‐4 |  |  |  |
|  |  | also be disposable, or reusable | Straight‐1 |  |  |  |
|  |  | blades if carried must be | Straight‐2 |  |  |  |
|  |  | reprocessed and maintained | Straight‐3 |  |  |  |
|  |  | according to manufacturers’ and | Straight‐4 |  |  |  |
|  |  | CDC guidelines) |  |  |  |  |
|  | 1.4 | Laryngoscope handle or high | LARGE | 1 each | ‐ | Paramedic |
|  |  | definition optical equivalent or | SMALL |  |  |  |
|  |  | video type (including, if |  |  |  |  |
|  |  | applicable, spare batteries, bulbs) |  |  |  |  |
|  | 1.5 | Lubricant (water soluble, for |  | 2 | AEMT | Paramedic |
|  |  | airway insertion) |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **#** | **DESCRIPTION** | **MIN. SIZE****PER ITEM** | **TOTAL QUANTITY** | **LEVEL** |
| AEMT | Paramedic |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1.6 | Waveform Capnography (EtCO2) |  | 1 | AEMT | Paramedic |
|  | device (may be incorporated into |  |  |  |
|  | monitor, able to print or save) |  |  |  |
| 1.7 | Nasal Cannula for CO2 sampling | ADULT | 2 each | AEMT | Paramedic |
|  |  | PEDI |  |  |  |
| 1.8 | Straight T‐Connector (15mm) for |  | 2 | AEMT | Paramedic |
|  | CO2 sampling |  |  |  |
| 1.9 | Stylet (sterile) | 14F | 2 each | ‐ | Paramedic |
|  |  | 6F |  |  |  |
| 1.10 | Gum bougie introducer device |  | 2 | ‐ | Paramedic |
|  | (sterile) |  |  |  |
| 1.11 | Syringe (sterile, larger may be | 10cc | 2 | AEMT | Paramedic |
|  | packaged with supraglottic | 30cc | 2 |  |  |
|  | airways) |  |  |  |  |
| 1.12 | Commercial tube holder (or | ADULT | 2 each | ‐ | Paramedic |
|  | equivalent) | PEDI |  |  |  |
| 1.13 | Nasogastric tubes (sterile) | 10F | 2 each | ‐ | Paramedic |
|  |  | 14F |  |  |  |
| 1.14 | Catheter‐tip syringe (sterile) | 60mL | 1 | ‐ | Paramedic |
| 1.15 | Hemostat |  | 1 | ‐ | Paramedic |
| 1.16 | Magill Forceps | ADULT | 1 each | ‐ | Paramedic |
|  |  | PEDI |  |  |  |
|  |
| **Intravenous** | 2.1 | Catheters (sterile, safety | 14ga | 5 each | AEMT | Paramedic |
| **Administration** |  | catheters) | 16ga |  |  |  |
|  |  |  | 18ga |  |  |  |
|  |  |  | 20ga |  |  |  |
|  |  |  | 22ga |  |  |  |
|  |  |  | 24ga |  |  |  |
|  | 2.2 | Macro administration sets | 10gtt | 4 | AEMT | Paramedic |
|  |  | (adjustable rate set acceptable) |  |  |  |  |
|  | 2.3 | Micro administration sets | 60gtt | 4 | AEMT | Paramedic |
|  | 2.4 | Venous constricting bands |  | 4 | AEMT | Paramedic |
|  | 2.5 | Padded arm board | PEDI | 1 | AEMT | Paramedic |
|  | 2.6 | Syringes (sterile) | 1cc | 3 each | AEMT | Paramedic |
|  |  |  | 3cc |  |  |  |
|  |  |  | 10cc |  |  |  |
|  |  |  | 30cc |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **#** | **DESCRIPTION** | **MIN. SIZE****PER ITEM** | **TOTAL QUANTITY** | **LEVEL** |
| AEMT | Paramedic |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2.7 | Antiseptic wipes (sterile, individual) |  | 12 | AEMT | Paramedic |
| 2.8 | Bio‐occlusive IV dressing |  | 6 | AEMT | Paramedic |
| 2.9 | 3‐way stop‐cock (for medication administration) |  | 2 | AEMT | Paramedic |
| 2.10 | Needles (sterile) | 18ga 21ga 23ga 25gaFilter needles forampules | 5 each | AEMT | Paramedic |
| 2.11 | Intraosseous (automatic, drill‐ type) |  | 1 | AEMT | Paramedic |
| 2.12 | Intraosseous needles (sterile) | 15mm 25mm 45mm | 2 each | AEMT AEMT AEMT | Paramedic Paramedic Paramedic |
| 2.13 | Pressure infuser |  | 2 | AEMT | Paramedic |
| 2.14 | IV extension set |  | 2 | AEMT | Paramedic |
|  |
| **Cardiac Monitor** | 3.1 | Defibrillator | required technology | AEMT(AED) | Paramedic |
| 3.2 | Cardiac Monitoring | required technology | ‐ | Paramedic |
| 3.3 | Pacing (transcutaneous) | required technology | ‐ | Paramedic |
| 3.4 | Cardioversion (synchronized and unsynchronized) | required technology | ‐ | Paramedic |
| 3.5 | Adjustable joule setting | required technology | ‐ | Paramedic |
| 3.6 | 12‐Lead capability | required technology | ‐ | Paramedic |
| 3.7 | Ability to print and save | required technology | ‐ | Paramedic |
| 3.8 | Pads (hands‐free, manufacturer recommended) | ADULT PEDI | 2 each | AEMT | Paramedic |
| 3.9 | Electrodes | ADULT PEDI | 36 each | ‐ | Paramedic |
| 3.10 | Razor (disposable only) |  | 2 | AEMT | Paramedic |
| 3.11 | Spare ECG paper (roll orequivalent) |  | 2 | ‐ | Paramedic |
| 3.12 | Spare batteries (3/4 ‐ full charge) |  | 2 | ‐ | Paramedic |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **#** | **DESCRIPTION** | **MIN. SIZE****PER ITEM** | **TOTAL QUANTITY** | **LEVEL** |
| AEMT | Paramedic |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 3.13 | Spare set of all necessary cables (including monitoring andtherapy cables) |  | 1 | ‐ | Paramedic |
|  |
| **Other ALS Equipment** | 4.1 | Nebulizer (mouthpiece, T‐piece) | ADULT PEDI | 2 each | AEMT | Paramedic |
| 4.2 | Pediatric age‐, weight‐ or length‐ based medication and/or dosing reference (most current version) |  | 1 | AEMT | Paramedic |
| 4.3 | Needle decompression kit orequivalent (sterile) | 3 ¼" | 2 | ‐ | Paramedic |
| 4.4 | CPAP device with equipment to do inline nebulizer treatment. High pressure outlets needed at oxygen sources, if required bydevice. | Masks: SMALL MEDIUM LARGE | 2 each | ‐ | Paramedic |
| 4.5 | Pulse‐Oximetry device (may be incorporated into monitor) |  | 1 | AEMT | Paramedic |
| 4.6 | Pulse‐Oximetry sensors | ADULT PEDI | 2 each | AEMT | Paramedic |
| 4.7 | Morgan Lenses eye shield |  | 2 | ‐ | Paramedic |
| 4.8 | Nasal Atomizers (in addition to BLS requirement) |  | 2 | AEMT | Paramedic |
|  | 4.9 | Portable CMED radio or other portable two‐way communications system to accessmedical direction |  | 1 | AEMT | Paramedic |
|  |
| **IV Infusion Pump - Required only if carrying Norepinephrine (must meet the following minimum requirements)** | 5.1 | 1. FDA approved, and not excluded from transport use by manufacturer’s instructions.
2. Contain drug library with adult and pediatric dosing calculator
3. Manual programming capabilities for medications outside the device’s own library and limits.
4. Capable of infusing one medication (channel) at a time.
 |  | 1 |  | Paramedic |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **#** | **DESCRIPTION** | **MIN. SIZE****PER ITEM** | **TOTAL QUANTITY** | **LEVEL** |
| AEMT | Paramedic |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | 1. Must use needle‐less administration sets
2. Capable of operating on AC/DC and battery power
 |  |  |  |  |
|  | 5.2 | Infusion sets for specific infusion pump. |  | 4 |  | Paramedic |
| **Note: Device must be appropriately secured in ambulance during storage and use** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **#** | **DESCRIPTION** | **MIN. SIZE****PER ITEM** | **TOTAL QUANTITY** | **LEVEL** |
| AEMT | Paramedic |

|  |
| --- |
| **Optional Equipment: Required Only for Services That Have Implemented Medical Director Options Under the Statewide Treatment Protocols** |
| **Needle Cricothyrotomy Kit** | 6.1 | Betadine or alcohol prep pads | 4 |  | Paramedic |
| 6.2 | 12‐14 gauge angiocath, 8.5cm, over the needle catheter with 10ml syringe with 3ml of saline | 2 each |  | Paramedic |
| 6.3 | 3mm adaptor | 2 |  | Paramedic |
| 6.4 | High pressure jet ventilator device withoxygen tubing (50psi) | 1 |  | Paramedic |
| 6.5 | Securing device | 2 |  | Paramedic |
| 6.6 | As alternative to 6.1‐6.5, equivalentcommercially prepackaged kit | 2 |  | Paramedic |
|  |
| **Surgical Cricothyrotomy Kit** | 7.1 | #15 Scalpel Blade | 2 |  | Paramedic |
| 7.2 | 10ml syringe | 2 |  | Paramedic |
| 7.3 | #6.0 Cuffed Endotracheal Tube | 2 |  | Paramedic |
| 7.4 | Flexible Guidewire device | 2 |  | Paramedic |
| 7.5 | Securing device | 2 |  | Paramedic |
| 7.6 | Sterile gauze for bleeding control | 4 |  | Paramedic |
| 7.7 | Betadine or other skin cleanser | 2 |  | Paramedic |
| 7.8 | As alternative to 7.1‐7.6, equivalentcommercially prepackaged kit | 1 |  | Paramedic |
|  |
| **Transport Ventilator** | 8.1 | Ventilator machine set up with appropriate tubing designated oxygen tank and the ability to do in‐line nebulizer treatments. Mustinclude appropriately sized masks. | 1 |  | Paramedic |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ultrasound** | 9.1 | Ultrasound machine set up with appropriate probes and conductive gel | 1 |  | Paramedic |