



REGULATORY/ MEDICAL HEALTH SERVICES
EMERGENCY MEDICAL SERVICES

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April 18, 2018

TO: ORANGE COUNTY EMS DISTRIBUTION LIST

FROM: SAM J. STRATTON, MD, MPH
MEDICAL DIRECTOR, ORANGE COUNTY EMS AGENCY

A handwritten signature in blue ink, appearing to read 'SJS', is written over the name 'SAM J. STRATTON' in the 'FROM' field.

SUBJECT: REVISED POLICY # 325.05 (AIR RESCUE UNIT INVENTORY)

In follow up to the attached memorandum sent on March 21, is the attached, revised OCEMS Policy # 325.05 (Air Rescue Unit Inventory). The major revisions to this policy are newly required automatic CPR chest compression units on both BLS and ALS Air Rescue Units and required manually operated defibrillators on ALS Air Rescue Units.

To compensate for increased weight related to newly required equipment that can affect aircraft operations, a number of items have been deleted from the Air Rescue inventory list as shown on the attached red-line copy of changes to the original policy.



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March 21, 2018

TO: ORANGE COUNTY EMS AIR SERVICE PROVIDERS
ORANGE COUNTY EMS MEDICAL ADVISORY GROUP
BASE HOSPITAL COORDINATORS
ORANGE COUNTY FIRE CHIEFS
ORANGE COUNTY EMS DISTRIBUTION LIST

FROM: SAM J. STRATTON, MD, MPH
MEDICAL DIRECTOR, ORANGE COUNTY EMS AGENCY

A handwritten signature in blue ink, appearing to read 'SJS', is written over the printed name of Sam J. Stratton.

SUBJECT: IMMEDIATE REVISION TO EMERGENCY RESPONSE EMS AIR PROVIDER INVENTORY

Orange County based air providers that respond to medical emergencies are required to add the following items to all aircraft that respond to 911 dispatched medical emergencies:

1. Automated, battery-powered, constricting band chest compression device – minimum of one per each responding aircraft.
2. Manual controlled battery-powered, cardiac defibrillator-monitor capable of performing, recording, and analyzing 12-lead electrocardiograms – minimum of one per each responding aircraft.

Addition of the above items to aircraft inventory must be implemented on a soon as possible basis. When all applicable provider aircraft have added the above equipment and air rescue/air ambulance paramedics have been trained in the use of the devices, notification shall be made to:

Orange County Emergency Medical Services Agency
Attn: EMS Medical Director
405 W 5th Street, Suite 301A
Santa Ana, CA 92701

This memorandum does not apply for air ambulance aircraft dedicated solely for interfacility transport services.

SJS/#3208



AIR RESCUE UNIT INVENTORY

I. APPLICATION:

This policy defines the standard drug and equipment inventory for basic life support (BLS) and advanced life support (ALS) air rescue units in Orange County. This inventory list applies to air rescue units only and differs from the standard required inventories to minimize the weight burden for aircraft. Title 8 CCR Section 5193, Bloodborne Pathogens, requires sharps injury prevention/ needleless products to be utilized when appropriate.

II. POLICY:

Each OCEMS authorized BLS and ALS Air Rescue unit shall carry the following minimum equipment, supplies and drug inventory. Addition of equipment, supplies, or drugs not listed in this policy to air rescue inventory must be pre-approved by the Orange County EMS Medical Director. All equipment must be latex free.

III. EQUIPMENT

STANDARD BLS Air Rescue Unit Equipment:

AED (BLS Units Only) AED, AED Pads and Razor (manual control monitor/defibrillator required for ALS units)

AUTOMATIC CPR CHEST
COMPRESSION UNIT: Battery powered, constricting band or plunger stabilized by chest band

BAG-VALVE DEVICE WITH OXYGEN INLET AND RESERVOIR: adult, pediatric

EXTRICATION SPLINT:
(STRETCHER) Horizontal flexibility, vertical rigidity; stabilizes head, neck and back (appropriate for spinal motion restriction)

GLUCOSE METER With test strips and lancets

OXYGEN: On board aircraft oxygen supply or portable "D" cylinder oxygen tank(s)

OC-MEDS TABLET OC-MEDS capable tablet/computer for PCR documentation

PULSE OXIMETER Fingertip or portable

SUCTION UNIT: Portable or handheld manual operation, with disposable canister and large bore (tonsil tip type) catheters

SPHYGMOMANOMETER: 20 to 300 mm Hg. dial with no pin stop
Blood pressure cuffs - Pediatric and adult cuffs

TRACTION SPLINTS: Lightweight, portable: adult, pediatric

OPTIONAL BLS Air Rescue Unit Equipment:

BACKBOARDS: Surface must be sealed and allow for decontamination between each patient use. Design should include a minimum of three straps (may be disposable) / with or without head immobilization device for backboard



AIR RESCUE UNIT INVENTORY

IV. BLS Air Rescue Unit Supplies:

Airway, nasopharyngeal: adult and pediatric sizes
Airway, oral: Adult and pediatric sizes
Alcohol wipes
Bags - Bio and Regular (for trash or emesis)
Bandage Shears
Blanket, clean / disposable (may use for burn covering)
Cannulas, nasal oxygen: Adult and pediatric
C-Collar, semi rigid or inflation design adult and pediatric sizes or adjustable collars
Catheter, suction: sizes #6, #10, #14,
Combitubes®: Regular and Small Adult or King Airway 4, 5
CO₂ detector – End tidal CO₂ detector (colorimetric or other FDA approved capnography device)
Dressings
 Kerlix roll
 4X4 gauze Sponges Sterile and Nonsterile
 ACE Wrap (3 inch width)
Gloves: Assorted sizes clean
Mask, oxygen non-rebreather: adult and pediatric
Pediatric length-based resuscitation tape
Penlight/flashlight
Personal protective equipment (masks, gowns, gloves, eye shields)
Razors, disposable
Restraints: Soft or Hard leather
Sharps needle disposal unit
Stethoscope
Syringes sizes:
 1 mL
 12 (10) mL
Syringe, catheter tip (for irrigation)
Splint Cardboard or SAM
Tape: assorted sizes and types
Tourniquet with quick release

Optional BLS Air Unit Supplies:

Airway adapters: 22mm, 15mm
Bag - Emesis
Burn dressing: Clean sheet or approved burn covering
Cold packs, chemical
Dressings: 5x9 ABD dressing
ET tube holders
Solution, sterile; NS 1000 mL (for irrigation)
Triangular Bandage
Thermometer; temporal, otic, or oral; electronic with disposable patient contact probes, FDA Approved.



AIR RESCUE UNIT INVENTORY

V. ALS AIR RESCUE UNIT EQUIPMENT:

ALS AIR RESCUE UNIT EQUIPMENT INCLUDES ALL STANDARD BLS EQUIPMENT AND SUPPLIES LISTED ABOVE AND THE FOLLOWING:

- LARYNGOSCOPE: Battery operated, quick change blades
 Handles: Adult and/or pediatric
 Batteries (extra)
 Blades: Adult - (single use/disposable acceptable)
 Pediatric for laryngoscopic foreign body removal - straight #1 and #2 (single use/disposable acceptable)
- MAGILL FORCEPS: Adult and pediatric; closed tip
- MONITOR / DEFIBRILLATOR (Manual Control, Biphasic Output - FDA approved):
 ECG Leads/Defibrillation-Pacing pads and cables
 Defibrillation capability / transcutaneous cardiac pacing capability
 Synchronizing countershock capability
 ECG monitoring capability with internal acute myocardial infarction interpretation capability
 Recorder: Must be able to produce a paper print out or transmissible electronic ECG copy of high quality.
 May include pulse oximetry and ET_{CO}₂ detection modules with output
 Batteries/Charge Units as Main Power Source

OPTIONAL AIR RESCUE UNIT EQUIPMENT:

- VIDEO LARYNGOSCOPE: Hand held preferred

VI. ALS AIR RESCUE UNIT SUPPLIES

ALS AIR RESCUE UNIT SUPPLIES INCLUDE ALL STANDARD BLS SUPPLIES LISTED ABOVE AND THE FOLLOWING:

- Acorn nebulizer: mouth and aerosol mask
ET tube: Assorted Adult sizes
Flexible intubation guide
Intraosseous (IO) needles with or without mechanical drill placement device
IV catheters, over needle sizes 16 through 22 gauge
IV rate flow regulator
IV tubing: Macro drip, 15 drops/mL or 10 drops/MI
 IV tubing must have at least two medication injection sites. Recommended tubing has a "Y" adapter
Lock, saline
OB kit with Bulb syringe
Needle- ARS type for chest decompression or Needle chest decompression kit (needle minimum 2 ½-inch length)
Needles: sizes: 18ga; 20ga (21ga);
Stylette, malleable (for ET tubes)
Syringes sizes: 3 mL, 6 (5) mL
Tourniquets, IV

**AIR RESCUE UNIT INVENTORY****DRUG INVENTORY BLS RESCUE**

MEDICATION	PREPARATION
Oral glucose solution	Various formulations

DRUG INVENTORY ALS RESCUE

MEDICATION	PREPARATION
Adenosine	6 mg/vial or prefilled syringe, OR 12 mg/vial or prefilled syringe
Albuterol (for inhalation)	3.0 mL (2.5 mg) of a 0.083% solution OR metered dose inhaler (Single use)
Amiodarone	50 mg/mL, vial or prefilled syringe
Aspirin, chewable	81 mg tablet individually packaged
Atropine	1 mg ampule, vial, or prefilled syringe
Dextrose 10%	250 mL sterile bag
Diphenhydramine	50 mg vial or prefilled syringe
Epinephrine 0.1 mg/mL	1 mg/10 mL prefilled syringe
Epinephrine 1.0 mg/mL	1 mg/1 mL ampule
Fentanyl and/or Morphine sulfate	100 mcg vial 4, 5 or 10 mg vial or prefilled syringe
Oral glucose solution	Various formulations
Glucagon	1 mg ampule with diluent
Midazolam	5 mg vial or prefilled syringe
Naloxone	Ampule, vial, prefilled syringe, or nasal spray
Nitroglycerin	0.4 mg/metered dose spray, 0.4 mg/tab, <u>or</u> powder packet
Normal saline	10 mL prefilled syringe or vial Without preservative, for respiratory treatment
Normal saline	1000 mL sterile IV bag
Ondansetron	Oral Dissolvable tablet or solution for injection



AIR RESCUE UNIT INVENTORY

Approved:

Sam J. Stratton, MD, MPH
OCEMS Medical Director

Tammi McConnell, MSN, RN
OCEMS Administrator

Original Date: 04/01/2015
Reviewed Date(s): 11/01/2016, 3/29/2018
Revised Date(s): 11/01/2016, 3/29/2018
Effective Date: 5/01/2018



AIR RESCUE UNIT INVENTORY

I. APPLICATION:

This policy describes the standardized drug and equipment inventory for basic life support (BLS) and advanced life support (ALS) air rescue units in Orange County. **This inventory list applies to air rescue units only and differs from the standard required inventories to minimize the weight burden for aircraft.** Title 8 CCR Section 5193, Bloodborne Pathogens, requires sharps injury prevention/ needleless products to be utilized when appropriate.

II. POLICY:

Each OCEMS authorized BLS and ALS Air Rescue unit shall carry the following minimum working equipment, supplies and drug inventory. **Addition of equipment, supplies, or drugs not listed in this policy to air rescue inventory must be pre-approved by the Orange County EMS Medical Director.** ~~The number or amount of each item and any addition to the inventory is at the discretion of the BLS/ALS Air Rescue provider and must reflect a specific unit's needs for its service area.~~

All equipment must be latex free.

III. EQUIPMENT

STANDARD BLS and ALS Air Rescue Unit Equipment:

BAG-VALVE DEVICE WITH OXYGEN INLET AND RESERVOIR: Adult
 Pediatric
 Infant

EXTRICATION SPLINT: Horizontal flexibility, vertical rigidity; stabilizes head, neck and back
~~(OPTIONAL).~~

**EXTRICATION SPLINT:
(STRETCHER) Horizontal flexibility, vertical rigidity; stabilizes head, neck and back
(appropriate for spinal motion restriction)**

~~BACKBOARDS: Surface must be sealed and allow for decontamination between each patient use. Design should include a minimum of three straps~~

~~Backboard straps, disposable (OPTIONAL).~~

AED (BLS Units Only) AED, AED Pads and Razor (AED not required for ALS units) (manual control monitor/defibrillator required for ALS units)

SUCTION UNIT: Portable, with disposable canister. Portable or handheld manual operation, with disposable canister and large bore (tonsil tip type) catheters

SPHYGMOMANOMETER: 20 to 300 mm Hg. dial with no pin stop
 Blood pressure cuffs - Pediatric and adult cuffs

OXYGEN: On board aircraft oxygen supply or portable "D" cylinder oxygen tank(s)

OC-MEDS TABLET OC-MEDS capable tablet/computer for PCR documentation

TRACTION SPLINTS: Lightweight, portable: adult, pediatric



AIR RESCUE UNIT INVENTORY

PULSE OXIMETER Finger tip or portable

GLUCOSE METER With test strips and lancets

OPTIONAL BLS Air Rescue Unit Equipment:

BACKBOARDS: Surface must be sealed and allow for decontamination between each patient use. Design should include a minimum of three straps (may be disposable) / with or without head immobilization device for backboard

IV. BLS and ALS Air Rescue Unit Supplies:

Airway adapters: 22mm, 15mm

Airway, nasopharyngeal: 4.5mm - 9.0mm or adult and pediatric sizes

Airway, oral: Adult and pediatric sizes

Alcohol wipes

Bags - Bio and Regular (for trash or emesis)

Bag - Emesis

Bandage Shears

Blanket, clean/disposable (may use for burn covering)

Burn dressing: Clean sheet or approved burn covering

Cannulas, nasal oxygen: Adult and pediatric

C-Collar, semi-rigid (Stiff-neck type, Philadelphia or equivalent) sizes: range of adult and pediatric sizes or adjustable collars

C-Collar, semi rigid or inflation design adult and pediatric sizes or adjustable collars

Catheter, suction: sizes #6, #8, #10, #14, #18

CAT tourniquet (OCEMS Approved with quick release)

Cold packs, chemical

Combitubes®: Regular and Small Adult or King Airway 3, 4, 5 (OPTIONAL COMBITUBE ALTERNATIVE)

CO₂ detector – End tidal CO₂ detector (colorimetric or other FDA approved capnography device)

Dressings

 5x9 ABD dressing

 Kerlix roll

 4X4 gauze Sponges Sterile and NonSterile

 ACE Wrap (3 inch width)

ET tube holders (OPTIONAL)

Gloves: Assorted sizes clean

Glucose meter with test strips

Head Immobilization Device For Backboard (OPTIONAL)

Lancets, sterile (for glucose determination)

Mask, oxygen non-rebreather: adult and pediatric

Pediatric length-based resuscitation tape

Penlight/flashlight

Personal protective equipment (masks, gowns, gloves, eye shields)

Pulse oximeter

Razors, disposable

Restraints: Soft or Hard leather restraints (OPTIONAL)

Sharps needle disposal unit

Solution, sterile; NS 1000 mL (for irrigation)

Stethoscope

Suction, tonsil tip; semi-rigid or rigid, large bore (Yankauer suction tip or Big Stik®)

Syringes sizes:

 1 mL



AIR RESCUE UNIT INVENTORY

12 (10) mL

Syringe, catheter tip (for irrigation)

Splint Cardboard or SAM

Tape: assorted sizes and types

Triangular Bandage (OPTIONAL)

Thermometer; temporal, otic, or oral; electronic with disposable patient contact probes, FDA Approved.

Tourniquet with quick release

Optional BLS Air Unit Supplies:

Airway adapters: 22mm, 15mm

Bag - Emesis

Burn dressing: Clean sheet or approved burn covering

Cold packs, chemical

Dressings: 5x9 ABD dressing

ET tube holders

Solution, sterile; NS 1000 mL (for irrigation)

Triangular Bandage

Thermometer; temporal, otic, or oral; electronic with disposable patient contact probes, FDA Approved.

V. ALS AIR RESCUE UNIT EQUIPMENT:

ALS AIR RESCUE UNIT EQUIPMENT INCLUDES ALL STANDARD BLS EQUIPMENT LISTED ABOVE AND THE FOLLOWING:

Each OCEMS authorized ALS Air Rescue unit shall also carry the following minimum working equipment, supplies and drug inventory. The number or amount of each item and any addition to the inventory is at the discretion of the ALS Air Rescue provider and must reflect a specific unit's needs for its service area.

LARYNGOSCOPE: Battery operated, quick change blades
Handles: Adult and/or pediatric
Batteries (extra)
Blades: Adult - curved/straight #3 and #4 recommended
(single use/disposable acceptable)
Pediatric - straight #1 and #2
(single use/disposable acceptable)
Bulbs (extra) —

MAGILL FORCEPS: Adult and pediatric; closed tip

MONITOR / DEFIBRILLATOR EQUIPMENT (FDA approved): —

- _____ Defibrillation capability
- _____ ECG monitoring capability
- _____ Recorder: Must be able to produce a paper print out or transmissible electronic copy of high quality.
- _____ Batteries/Charge Units as Main Power Source

MONITOR / DEFIBRILLATOR (Manual Control, Biphasic Output - FDA approved):
ECG Leads/Defibrillation-Pacing pads and cables
Defibrillation capability / transcutaneous cardiac pacing capability
Synchronizing countershock capability



AIR RESCUE UNIT INVENTORY

ECG monitoring capability with internal acute myocardial infarction interpretation capability
Recorder: Must be able to produce a paper print out or transmissible electronic ECG copy of high quality.
May include pulse oximetry and ETCO₂ detection modules with output Batteries/Charge Units as Main Power Source

OPTIONAL AIR RESCUE UNIT EQUIPMENT:

VIDEO LARYNGOSCOPE: Hand held preferred

VI. ALS AIR RESCUE UNIT SUPPLIES

ALS AIR RESCUE UNIT SUPPLIES INCLUDES ALL STANDARD BLS SUPPLIES LISTED ABOVE AND THE FOLLOWING:

- Acorn nebulizer: mouth and aerosol mask
- Defibrillation pads/gel
- EID/EDD (~~Esophageal intubation detector device with 15 mm adapter~~)
- ECG electrodes
- ET tube: Assorted Adult sizes (~~6.0, 6.5, 7.0, 7.5, 8~~)
- Flexible intubation guide
- ~~Intraosseous (IO) needles with mechanical drill placement device (OPTIONAL)~~
- Intraosseous (IO) needles with or without mechanical drill placement device
- IV catheters, over needle sizes 16 through 24 22 gauge
- IV rate flow regulator
- IV tubing:
 - Macro drip, 15 drops/mL or 10 drops/mL
 - IV tubing must have at least two medication injection sites. Recommended tubing has a "Y" adapter
- Lock, saline
- OB kit with Bulb syringe
- Needle- ARS type for chest decompression OR Needle chest decompression kit (needle minimum 2 ½ inch length)
- Needles: sizes: 18ga; 20ga (21ga);
- Stylette, malleable (for ET tubes)
- Syringes sizes: 3 mL, 6 (5) mL
- Tourniquets, IV

DRUG INVENTORY BLS RESCUE

MEDICATION	PREPARATION
Oral glucose solution	Various formulations

DRUG INVENTORY ALS RESCUE

**AIR RESCUE UNIT INVENTORY**

MEDICATION	PREPARATION
Adenosine	6 mg/vial or prefilled syringe, OR 12 mg/vial or prefilled syringe
Albuterol (for inhalation)	3.0 mL (2.5 mg) of a 0.083% solution OR metered dose inhaler (Single use)
Amiodarone	50 mg/mL, vial or prefilled syringe
Aspirin, chewable	81 mg tablet individually packaged
Atropine	1 mg ampule, vial, or prefilled syringe
Dextrose 10%	250 mL sterile bag
Diphenhydramine	50 mg vial or prefilled syringe
Epinephrine 0.1 mg/mL	1 mg/10 mL prefilled syringe
Epinephrine 1.0 mg/mL	1 mg/1 mL ampule
Fentanyl	100 mcg
Oral glucose solution	Various formulations
Glucagon	1 mg ampule with diluent
Midazolam	5 mg vial or prefilled syringe
Morphine sulfate	4, 5 or 10 mg (Preparation of morphine should be DIFFERENT than that of Fentanyl)
Naloxone	Ampule, vial, prefilled syringe, or nasal spray
Nitroglycerin	0.4 mg/metered dose spray, 0.4 mg/tab, bottle of 25 tabs (OPTIONAL)
Normal saline	10 mL prefilled syringe or vial Without preservative, for respiratory treatment
Normal saline	1000mLsterile IV bag
Ondansetron	Oral Dissolvable tablet or solution for injection
Sodium bicarbonate	Prefilled syringe

Approved:



AIR RESCUE UNIT INVENTORY

Sam J. Stratton, MD, MPH
OCEMS Medical Director

Tammi McConnell, MSN, RN
OCEMS Administrator

Original Date: 04/01/2015
Reviewed Date(s): 11/01/2016
Revised Date(s): 11/01/2016
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