TITLE: **EMS RESPONSE VEHICLE MEDICATION AND EQUIPMENT** EMS Policy No. **4101**

PURPOSE:

The purpose of this policy is to standardize equipment and establish minimum levels for the medication and equipment available on EMS response vehicles in San Joaquin County. This includes non-transport EMS response vehicles, emergency ambulances and non-emergency ambulances.

AUTHORITY:

Health and Safety Code, Division 2.5, Sections 1797.197, 1797.197a, 1797.206, 1797.220, 1798; California Code of Regulations, Title 22, Division 9, Chapter 3.1 Section 100066, and Chapter 3.3 Sections 100091, 100096.

POLICY:

It is the policy of SJCEMSA to require a minimum level of medical equipment and medications for EMS response vehicles working in the San Joaquin County EMS system. A minimum level means the minimum level needed to be available to respond to an emergency call in San Joaquin County. EMS Providers shall ensure that all EMS response vehicles are sufficiently stocked to not fall below minimum levels at any time.

PROCEDURE:

I. EMS Service Providers are required to develop a vehicle stocking and inspection procedure to ensure compliance with this policy at the start of each shift including a written record of each daily inspection for each EMS vehicle maintained in an auditable format. Records shall be maintained for a minimum of six months. EMS Service Providers shall require each attending paramedic or EMT to conduct an inspection of their assigned EMS response vehicle at the beginning of their shift.

II. The attending paramedic or EMT on each EMS response vehicle is responsible for ensuring that all medications and equipment are present at the beginning of each shift and in sufficient quantities to not fall below the minimum levels prescribed in this policy. Additionally, they must verify that all equipment is functioning properly and that all battery-powered devices are fully charged.

III. Medications, supplies, and equipment shall be stored in accordance with the manufacturer's recommendation unless otherwise specified in this policy. The use of expired medications and supplies is prohibited.

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IV. EMS Service Providers shall have and maintain appropriate state and federal approvals for point of care testing including a waiver form the from the Centers for Medicare and Medicaid Services, pursuant to the Clinical Laboratory Improvement Amendments (CLIA), for laboratory devices including testing to measure lab values in the prehospital setting as follows:
   A. BLS NT and BLS AMB for finger stick glucose.
   B. ALS NT and ALS AMB for finger stick glucose, capnometry, capnography, and carbon monoxide.

V. EMS Service Providers that are unable to maintain medication or equipment required in this policy due to ongoing or imminent national medication and equipment shortages shall complete and submit Form 4101A Medication Shortage Mitigation and Response Strategies.

VI. EMS Service Providers that request a waiver from medication or equipment in this policy shall complete and submit Form 4101B, Request for Waiver of Requirements.

VII. Any substitutions or modifications to this list must be approved by the EMS Medical Director. If a ground ambulance is dispatched by the authorized emergency ambulance dispatch center and its supplies are below the minimum inventory, it may still respond as a first response unit. Patient transport is permissible only if the patient's care will not be compromised by the equipment or supply deficiency. An Unusual Occurrence Report must be submitted to SJCEMSA in such instance.

Table 1: ALS and BLS Common Equipment and Supplies	**Minimum Level**			
	BLS		**ALS**	
Airway Management	**NT**	**AMB**	**NT**	**AMB**
In ambulance oxygen source, minimum of 500 PSI with a wall mounted regulator	NA	1	NA	1
Portable oxygen - D or E size cylinders, minimum of 200 PSI, with regulator	1	1	1	1
Spare Portable oxygen - D or E size cylinders, minimum of 1800 PSI	1	1	1	1
Wall mounted suction device	NA	1	NA	1
Battery powered portable suction unit	1	1	1	1
Disposable suction canisters	1	2	1	2
Suction catheters with control for each size Fr 14, 18	1	1	1	1
Connecting tubing for suction units	1	1	1	1
Yankauer Tonsil Tip Suction Catheter	1	1	1	1
Disposable bag valve device - adult	1	1	1	1
Disposable bag valve device – pediatric	1	1	1	1

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Table 1: ALS and BLS Common Equipment and Supplies	**Minimum Level**			
	BLS		**ALS**	
Airway Management	**NT**	**AMB**	**NT**	**AMB**
Disposable bag valve device – infant	1	1	1	1
Tube of water-soluble lubricating jelly (or multiple single use packets)	1	1	1	1
Oropharyngeal Airway Kit (adult, child, infant) each size 0 – 8 or 40mm to 110mm	1	1	1	1
Nasopharyngeal Airways, each size Fr 20, 24, 28, 32, 36	1	1	1	1
Nasal Cannula, pediatric	1	1	1	1
Nasal Cannula, adult	1	1	1	1
Adult Non-rebreather oxygen mask	1	1	1	1
Pediatric Non-rebreather oxygen mask	1	1	1	1
Adult laryngoscope handle with alkaline batteries or 2 disposable handles	NA	NA	1	1
Pediatric laryngoscope handle with alkaline batteries or 2 disposable handles	NA	NA	1	1
Spare alkaline batteries for laryngoscope handle	NA	NA	2	2
Disposable Macintosh laryngeal blades each size: #1, #2, #3, #4	NA	NA	1	1
Disposable Miller laryngeal blades each size: #0, #1, #2, #3, #4	NA	NA	1	1
Magill Forceps – Adult and Pediatric	NA	NA	1	1
Endotracheal tubes each size: 6.0, 6.5, 7.0, 7.5, 8.0, 8.5	NA	NA	1	1
ET tube holder	NA	NA	1	1
Disposable Endotracheal Tube introducers	NA	NA	1	1
Endotracheal tube stylet	NA	NA	1	1
End tidal CO2 device, adult	NA	NA	1	1
End tidal CO2 device, pediatric	NA	NA	1	1
Nebulizer mask adult	NA	NA	1	1
Nebulizer mask pediatric	NA	NA	1	1
Saline humidifier	1	1	1	1
Breath actuated nebulizer	NA	NA	1	1
Needle and catheter for pleural decompression: 10 or 14 gauge 3.25 inch needle (with Betadine swab, tape, and 10 ml syringe)	NA	NA	2	2
Percutaneous Needle Cricothyroidotomy insertion kit, which includes: 10 ml syringe, Translaryngeal jet ventilator device with push-button and high-pressure tubing with locking device (Adult), 10 or 12-gauge needle for adult, and Betadine swab, or kit approved by EMS Medical Director.	NA	NA	1	1
iGel Airway each size 3.0, 4.0, 5.0	~~NA~~1	~~NA~~1	1	1
iGel Airway each size 1.0,1.5, 2.0, 2.5	~~NA~~1	~~NA~~1	1	1
Pneumatic Continuous Positive Airway Pressure (CPAP) device with manufacturers recommended size masks	NA	NA	1	1
Zoll Z series™ ventilator with CPAP and/or BiPAP*	NA	NA	NA	1
	Minimum Level			

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Table 1: ALS and BLS Common Equipment and Supplies	**BLS**		**ALS**	
Airway Management	**NT**	**AMB**	**NT**	**AMB**
Adult Ventilator Circuits*	NA	NA	NA	1
CPAP mask compatible with Zoll Z series™ ventilator each size large and extra large*	NA	NA	NA	1
Inline Hepa Filter*	NA	NA	1	1
Assessment and Treatment	**NT**	**AMB**	**NT**	**AMB**
Stethoscope	1	1	1	1
Penlight	1	1	1	1
Blood pressure cuff: thigh, adult, child, infant	1 ea	1 ea	1 ea	1 ea
Patient thermometer	1	1	1	1
Pulse oximetry device approved by the Food and Drug Administration (FDA)	1	1	1	1
Blood glucose measuring device approved by the FDA with multiple test strips	1	1	1	1
Length based pediatric resuscitation tape	NA	NA	1	1
Cardiac monitor with defibrillation/pacing/12 lead capable	NA	NA	1	1
Pediatric defibrillation equipment	NA	NA	1	1
ECG electrodes all patient sizes	NA	NA	6	9
Automated External Defibrillator – Compliant with the current AHA Guidelines and capable of delivering both adult and pediatric shocks	1	1	NA	NA
AED cables and pads for sizes adult and pediatric	1	1	NA	NA
Piston style mechanical compression device	1	NA	1	NA
Bandage shears (heavy duty)	1	1	1	2
Rolls of tape, size 1” or 2” or 3” Hypoallergenic (Transpore/paper)	2	2	2	2
Emesis basins	NA	2	NA	2
Bed pan/fracture pan	NA	1	NA	1
Urinal	NA	1	NA	1
OB Kit, which includes: (1) pair of sterile gloves, (1) drape sheet, (2) umbilical clamps, (4) disposal towels, (2) O.B. towelettes, (1) bulb syringe, (1) O.B. sterile pad (1) plastic bag for placenta, (2) twist ties, (1) receiving blanket, (3) gauze sponges, (pk/2)	1	1	1	1
Ring Cutter	1	1	1	1
Soft ankle/wrist restraints	NA	4	NA	4
Trauma	**NT**	**AMB**	**NT**	**AMB**
Board for use in extrication	1	1	1	1
Scoop stretcher	NA	1	NA	1

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Table 1: ALS and BLS Common Equipment and Supplies	**Minimum Level**			
	BLS		**ALS**	
Trauma	**NT**	**AMB**	**NT**	**AMB**
One or more of the following for use in patient movement on scene: collapsible litter, pole-less litter, soft or tarp litter, or stokes litter	1	1	1	1
Kendrick Immobilization Device (KED) or similar device approved by the EMS Agency	1	1	1	1
Pediatric immobilization device	1	1	1	1
Adjustable C-Collar, ~~Philadelphia®, Aspen®, Miami J®, X-Collar™,~~ or SJCEMSA approved cervical spine stabilization device	4	4	4	4
Soft cervical collars – small pediatric	2	2	2	2
Adult traction splint for femur	1	1	1	1
Pediatric traction splint for femur or adult traction splint that adjusts to pediatric size	1	1	1	1
Rigid splints for splinting each extremity	1	2	1	2
Sterile burn sheets	2	2	2	2
Occlusive dressings	2	2	2	2
2 x 2 gauze pads Sterile	NA	NA	4	4
4 x 4 gauze pads Sterile	5	5	5	5
Hemostatic dressings: Quick Clot Combat Gauze LE; or Quick Clot, EMS Rolled Gauze, 4x4 Dressing, Trauma Pad; or Celox Gauze, Z-Fold Hemostatic Gauze; or Celox Rapid, Hemostatic Z-Fold Gauze	2	2	2	2
Trauma dressings	2	2	2	2
Gauze roll type bandages, size 2 or 4 or 6	2	2	2	4
Triangular bandages	1	1	1	2
Instant ice packs	2	2	2	4
Trauma Tourniquets: SOF Tactical Tourniquet or the Combat Application Tourniquet (CAT)	4	4	4	4
General Equipment	**NT**	**AMB**	**NT**	**AMB**
San Joaquin County Map Book (current within 2 years) or GPS Equivalent	1	1	1	1
Map book for assigned response zones or district (current within 1 year) or GPS Equivalent	1	1	1	1
Battery operated flashlight	1	1	1	1
Functional environmental controls for heat and air conditioning for the patient compartment.	NA	1	NA	1

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Patient compartment door latches operable from inside and outside.	NA	1	NA	1
Table 1: ALS and BLS Common Equipment and Supplies	**Minimum Level**			
General Equipment	**NT**	**AMB**	**NT**	**AMB**
Patient sheets (disposable)	NA	2	NA	2
Patient blankets (disposable)	1	2	1	2
Patient pillows (disposable)	NA	2	NA	2
Ambulance gurney with mattress, capable of elevating the head, feet, and adjustable to several levels.	NA	1	NA	1
VHF & UHF mobile radio minimum 45-watt power located in driver's compartment programmed to communicate with dispatch, hospitals, and other responding units to include frequencies: SJC Med Net channels 1- 8, SJC HEAR, and Cal Cord.	1	1 ea	1	1 ea
UHF control head, microphone and speaker installed in each ambulance's patient compartment to communicate with the base and receiving hospitals.	NA	1	NA	1
San Joaquin County EMS Agency BLS Protocols	1	1	1	1
San Joaquin County EMS Agency ALS Protocols	NA	NA	1	1
Field Operations Guide ICS 420-1 *(FOG Manual),* current edition	1	1	1	1
START triage tags	25	25	25	25
MCI Vests - Medical Group Supervisor, Triage Unit Leader (min)	NA	NA	1	1
Infection Control	**NT**	**AMB**	**NT**	**AMB**
Bottle of instant hand sanitizer (alcohol based) or box of disinfectant wipes for human use.	1	1	1	1
Biohazard bags (various sizes recommended)	2	2	2	2
Commercial Biohazard spill kit or equivalent	1	1	1	1
Covered waste container	NA	1	NA	1
Needle disposal system, which is OSHA compliant	1	1	1	1
Antibacterial disinfectant solution	1	1	1	1
Latex free gloves in sizes small, medium, large, extra-large.	1 box	1 box	1 box	1 box
Isolation Kit including: (2) Gowns, (2) N95 or N100 respirators, (2) eye/face splash guards. Must have sizes sufficient for all staff necessary to meet OSHA requirements.	3	2	3	2

Table 2: BLS Specific Medications, Supplies, and Equipment	**Minimum Level**	
	BLS NT	**BLS AMB**
Epinephrine auto-injector (adult) 0.3mg	1	1
Epinephrine auto-injector (pediatric) 0.15mg	1	1
Naloxone auto-injector or preload syringe	2	1
Mucosal Atomizer Device	2	1
Glucose for oral administration (tube)	1	1
Ondansetron ODT**	NA	8 mg
Saline/Sterile Water Irrigating	2000 ml	2000 ml

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Table 2: BLS Specific Medications, Supplies, and Equipment	**Minimum Level**	
	BLS NT	**BLS AMB**
Aspirin chewable 81 mg tablets	324mg	324mg
Acetaminophen Liquid	1,000 mg	1,000mg
Diphenhydramine Liquid	50 mg	50mg
Ibuprofen Liquid	800 mg	800 mg

Table 3: ALS Specific Medications, Supplies, and Equipment	**Minimum Level**	
	ALS NT	**ALS AMB**
Acetaminophen – liquid for oral administration	1,000 mg	1,000 mg
Acetaminophen for injection	1,000 mg	1,000 mg
Adenosine for injection	30 mg	30 mg
Albuterol Aerosolized Solution 2.5 mg each	4	4
Aspirin, chewable 81 mg tablets	1 bottle	1 bottle
Atropine for injection	3 mg	3 mg
Atrovent (Ipratropium bromide HFA) 0.5 mg packets	2	3
Diphenhydramine for injection	50 mg	100 mg
Diphenhydramine – liquid for oral administration	50 mg	100 mg
Calcium Chloride for injection	1gm	1 gm
Dextrose 50% for injection or; Dextrose 10% solution in 250 ml bags for injection	50 gm or (3) 250 ml bags of 10% solution or combination	75 gm or (2) 250 ml bags of 10% solution or combination
Epinephrine 1:1,000 for injection	2 mg	4 mg
Epinephrine 1:10,000 for injection	4 mg	8 mg
Fentanyl for injection	300 mcg	500 mcg
Glucose for oral administration (tube)	2	2
Ibuprofen – liquid for oral administration	800 mg	800 mg
Ketorolac for injection	30mg	30mg
Lidocaine for injection	400 mg	400 mg
Magnesium Sulfate for injection	4 gm	8 gm
Midazolam for injection	10 mg	20 mg
Morphine Sulfate for injection	20 mg	40 mg
Naloxone for injection	2 mg	4 mg
Nitroglycerin spray (minimum of 60 metered doses) or Tablet 1/150 gr	1 bottle	1 bottle
Olanzapine tablet	15 mg	15 mg
Tranexamic acid for injection	2gm	4gm
IV Normal Saline 250ml (maintained at manufacturer's recommended temperature range)	2	2
IV Normal Saline 1000ml bags (maintained at a range of 2 degrees within normal body temperature	2	2
IV warming system capable of maintaining two 1000ml bags at a range of 2 degrees within normal body temperature	1	1

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Table 3: ALS Specific Medications, Supplies, and Equipment	**Minimum Level**	
	ALS NT	**ALS AMB**
IV Normal Saline 500ml or 1000ml bags (maintained at manufacturer's recommended temperature range)	2000 ml	4000 ml
Normal saline for injection 10ml or 20 ml vials or preloads	4	4
Saline/Sterile Water 1000ml Irrigating	2	2
Ondansetron – Packet of 2 x 4mg oral disintegrating tablets	8 mg	8 mg
Ondansetron for injection	8 mg	8 mg
Sodium Bicarbonate for injection	50 mEq	50mEq
IV start kit, which contains: – (2) Alcohol or Chlorhexidine wipes, (1) Roll tape, 3/4", (2) – 2" x 2" gauze sponge, (1) ID label, (1) Providone iodine prep, (1) Adhesive bandage, (1) Latex Free Tourniquet, (1) OpSite Dressing (or equivalent)	3	4
Disposable razors	2	2
IV catheters each size: 16ga, 18ga, 20ga, 22ga	2	2
IV catheters each size: 14ga, 24ga	2	2
Hypodermic needles each size:, 21ga, 25ga	2	2
Disposable syringes each size: 1ml sub-q, 3ml, 5ml/6ml, 10ml/12ml	2	2
IO drill	1	1
IO Needles each size: 15mm, 25mm, 45mm	1	1
IO Needle stabilizer		
Betadine solution or swabs	2	4
Solution administration set, Macrodrip	2	2
Solution administration set, Microdrip	1	2
Secondary IV infusion kit	1	2
Medication added labels	1	2
IV extension tubing	2	2
Saline locks	2	2
Dial-a-Flow or equivalent	1	1
1000ml Pressure infusion bag or equivalent	1	1
Mucosal Atomizer Device	2	2
Table 4 Optional Equipment	**Minimum Level**	
	ALS NT	**ALS AMB**
Non C Channel Video Laryngoscope with photo or video recording ability,***	1	1

VIII. Critical Care Transport (CCT)/Specialty Care Transport (SCT) shall be stocked to the ALS AMB minimum level.
Below is a list of recommended additional supplies, equipment, and medications.

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Table 5: CCT/ SCT Recommended Medications, Supplies, and Equipment	**Quantity**
BVM PEEP valve	2
Dual Lumen Salem Sump (10, 14, 16 Fr)	1ea
Doppler	1
Tube Ultra Sound Gel	1
Reflex hammer	1
Suction catheter W/ chimney valve (10-18)	1ea
In-line Ballard suction (24Fr & 8 Fr)	2ea
Salem Sump OG tubes (6fr and 8fr)	1ea
Suction catheter (6Fr and 8Fr)	1ea
Meconium aspirator	1
Un-cuffed ET tube (2.5 -4.0)	1 ea
Pediatric stylet 6fr	1
Neonatal BVM with small and extra small mask	1ea
Pediatric pulse oximeter probes	1ea
SpO2 Ear probe	1
NEO-TEE: T-Piece resuscitator	1
Neo fit ETT holder	1ea
Ram cannula system with (sizes green through purple)	1ea
Edwards (Oval) invasive line cable	1
Abbott (square) invasive line cable	1
Transducer (ext side)	1
Mechanical Ventilator	1
Adult ventilator circuit	2
Pediatric ventilator circuit	2
Multi channel IV pump	1
IV pump line sets	6
IV pump half sets	6
Warming mattress	1
0.2 micron filter	1
Amiodarone 150mg	3
Phenergan 25mg/ml	1
Solu-medrol 125mg	1
Ofimev 1000/100ml	1
Etomidate 40mg 20/ml	1
Rocuronium 100mg/10ml	1
Esmolol 2000mg/100ml	2
Norepinephrine 4mg/4ml	2
Phenylephrine 10mg/ml	1
Calcium Gluconate 1g/10ml	1
Nitroglycerin 50mg/10ml	1
Lasix 100mg/10ml	1
Nicardipine 25mg/10ml	1

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Table 5: CCT/ SCT Recommended Medications, Supplies, and Equipment	**Quantity**
Pitocin 10u/1ml	2
Terbutaline	1
Labetalol 100mg/20ml	2

*Optional for non-emergency ALS interfacility transfer ambulance.
**Emergency ambulance providers only.
***Shall be approved by EMS Medical Director prior to being put into service.

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Medical Director EMS Director