COUNTY OF SAN LUIS OBISPO HEALTH AGENCY
PUBLIC HEALTH DEPARTMENT
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Matrix of policy and procedure changes
Effective April 15th 2017

Policy #	Policy Name	Change
Administration		
100	Quality Improvement	The State EMS Authority approved EMS QI Plan The plan has been added to the website
Communication and Documenting		
120 (old #)	Procedure to Secure MedCom Radio System	DELETED - obsolete
121	NEW - Paramedic Base Station Report	NEW format • Requires each Base Report to be preceded by the call type i.e. Alert, Consult, Medication Request, Notification etc. • MICNs MAY give all orders listed under Base Hospital Orders • Language was added to clarify what information should be transmitted with each call type NEW – A trial study with Marian Medical Center • With the implementation of the policies, Paramedic may communicate directly with Marian Medical Center (MMC) for patients going to MMC that do NOT require base orders or consultation for the following patients: ○ Notifications ○ STEMI Alerts ○ Trauma Alerts ○ Stroke Alerts ○ ROSC – no additional orders needed
121 - A	NEW – Attachment with Base Hospital	NEW - A matrix to identify which Base Hospital should be contacted in each

	Notification Matrix	of the notification situations
124 -A	Documentation of Prehospital Care	Updated list of accepted abbreviations
125	NEW - Determination of Death/DNR/Termination of Resuscitation	NEW – Determination of Death and the DNR policies were combined into one policy – Language added to clarify criteria for determining death/terminating resuscitation. Language added for when Base contact is/is not required UPDATED LANGUAGE BLS may terminate resuscitative measures (no base contact required) when: • The criteria of Obvious Death are present Or • The patient is absent sign of life (vital signs) and confirmed the patient is the person with the DNR order. ON Duty EMT, Paramedic or Flight/CCT Nurse may terminate resuscitative measures (No base contact required) when: • Reliable history of cardiac arrest with no CPR for more than 20 minutes • Traumatic arrest - absent signs of life (pulseless/apneic) upon EMS arrival • Severe or multiple injuries clearly incompatible with life. • Resuscitation was initiated and information became available that would have prevented the initiation of resuscitation (i.e. Physician Orders for Life Sustaining Treatment (POLST) or advanced directive) CONSULTATION with Base Station in following circumstances: STEMI Base (French) for: • For termination of resuscitative measures for medical cardiac arrest > 34 kg unresponsive to ALS procedures after 20 min of • Left Ventricular Assist Device (LVAD) or other similar mechanical

		ventricular device is present Consultation with the STEMI Base Hospital (French Hospital) physician or MICN: SLO Trauma Center (SVRMC): • Traumatic Arrest with signs of life upon EMS arrival, and prolonged transport time to hospital Closest SLO base hospital: • All other termination orders: e.g. medical arrest of pediatrics <34 kg, atraumatic arrests due to non-cardiac origin
Destination and Transport		
150	Physician Request for Transfer of Patient By Ambulance	ADDED "Advanced Practice Provider" (Physician Assistant or Nurse Practitioner) in addition to a physician may request "ambulance only response" for certain situations
152	STEMI Triage and Destination	UPDATED to include: • ROSC patients shall be transported to a STEMI receiving center regardless of 12 lead
154	Diversion	ADDED • A hospital shall notify MedCom and the transporting agencies of a scheduled maintenance that would place a hospital on partial diversion as soon as they become aware i.e. scheduled maintenance for CT scanner • When a hospital is on diversion they shall continue to remain the intended base/Specialty Care Center for medical control and destination
155	UPDATED - EMS Helicopter Operations	UPDATED • Criteria for expedited response and first responder request simplified • The requirement to poll for ETAs prior to dispatching was eliminated. The county is divided into two primary response areas. • Med Com continues to remain the sole dispatcher for EMS aircraft • Expedited launch areas and the county division maps were updated • Trauma patients meeting Step 3 or 4 utilizing EMS aircraft shall continue consult with the Trauma Center for EMS aircraft destination.

		• Trauma patients meeting Step 1 or 2 shall continue to be transported to the closest trauma center
155 A-F	EMS Aircraft Operations attachments A through F	Attachments updated to reflect policy changes • Opportunity for Improvement form to be completed for calls that fall outside of policy • Expedited Launch Zones - narrative • Maps with expedited zones and county division lines • Flight Times and Landing Zone Safety and Selection information • EMS Aircraft Request and Destination information
Operations		
208	UPDATED - Out of County Paramedic in SLO County During Emergency Operations	UPDATED to comply with Fire Scope language: Logistics Section Chief, Medical Unit Leader or designee shall notify the EMS Agency of the out-of-county paramedic assigned to function as a paramedic in a mutual aid response
209 A	UPDATED - Use of SLO Paramedic Outside of SLO County	UPDATED • Controlled substance inventory adjusted to two (2) each for Morphine and Midazolam

210	NEW - MCI Plan	NEW - See separate training bulletin – Brief HIGHLIGHTs
		• Defined levels of MCIs that shall be declared
		  • LEVEL I – 3-10 patients
		  • Level II – greater than 10 patients
		• Triage tags to be used on ALL MCIs
		• First arriving ambulance shall report to IC expecting to become Transportation leader
		• MedCom will alert and poll hospitals, then communicate with IC or Transportation Unit Leader

210 -A	NEW - MCI Matrix	NEW: Abbreviated form for MCI Policy
Education and Training		

350-351	MICN Authorization/Re-authorization	NEW - For consistency - the policy is now two separate polices Authorization and Reauthorization
Treatment Protocols		
BLS /ALS Changes to all treatment protocols and procedures include: • Reformatting • Merged BLS and ALS treatment protocols and procedures • Merged Adult and Pediatric treatment protocols and procedures • Pediatric treatment protocols based on weight ≤ 34Kg • New numbering sequence o General Treatments (601 - 603) o Medical (610 - 621) o Environmental (630 - 632) o Cardiac (640 - 644) o OB/GYN (650 - 651) o Trauma (660) o EMS Procedures (701 - 712)		
General Treatments		
601	Universal	Referenced in all policies ADDED • Vascular access – Procedure #710 (Previous Intravenous Therapy Protocol Therapy removed) • Other standard procedures for routine patient care
601 - A	Universal Definitions	Provides guidelines for: • Hemodynamic instability – both trauma and medical • Stable, unstable, and extremis • Signs of life
602	Airway Management	CHANGE The emphasis to apply O2 to only those in need

		• O2 administration is not required with O2 Sat > 94% • When applying O2 use the simplest method to maintain O2 Sat > 94% • Do not withhold O2 if a patient is in extremis or respiratory distress • Pediatric Intubations removed from ALS skills for the county
603	Pain Management	CHANGED Language • Indication – "For isolated orthopedic extremity injuries, dislocations, or burns without associated multi-system trauma and SBP > 90mmHg" ADDITION • Standing orders: Ondansetron may be given "for severe nausea and vomiting associated with MS administration"
Medical		
610	NEW - Abdominal Pain	NEW ALS Protocol
611	Allergic Reaction	CHANGE • Diphenhydramine dose for adults changed to 50 mg IV/IM (no longer weight based)
612	Altered Level Of Consciousness	CHANGES/ADDITIONS • Narcan administration for respiratory depression move to Respiratory Distress (Opiate Overdose) Policy #618 ADDED Language • "Assisting a patient with Oral Glucose requires they be awake, able to swallow, and follow commands"
613	Behavioral	CHANGES/ADDITIONS • Use of Restraints Procedure # 711 referenced • Clarification of pediatric IN midazolam dosing, (max 0.3 mL per nostril) • Removal of tasers by law enforcement language added

614	NEW - Ingestion/Poisoning	COMBINED - several ingestion policies into one policy CHANGE • Activated Charcoal now an ALS standing order • Adult and Pediatric dose of Activated Charcoal – Adult 50 Gm and Pediatric 25 Gm (no longer weight based) BASE ORDERS – ADULT CHANGES • Beta Blocker OD – Glucagon changed to 3-10 mg slow IV (when cache available) NEW • Calcium Channel Blocker OD – Calcium Chloride changed to 1 Gm IV NEW • Organophosphate OD – Atropine 2mg IV/IO/IM • Tricyclic OD with tachycardia and widening QRS – Sodium Biacarb1 meq IV/IO BASE ORDERS – PEDIATRIC • Beta Blocker OD – Glucagon 0.1 mg/kg IV/IM • Calcium Channel Blocker OD – Calcium Chloride 20 mg/kg slow IV max dose of 500 mg • Organophosphate OD – Atropine 2mg IV/IO/IM • Tricyclic OD with tachycardia and widening QRS – Sodium Bicarb 1 meq IV/IO
615	Severe Nausea and Vomiting	• No changes
616-618	Respiratory Distress Policies	Respiratory distress is separated into 3 separate policies
616	NEW - Respiratory Distress – Bronchospasm	ADDED • Croup treatment to bronchospasm – humidified O2 • Albuterol for treatment of Croup Base Hospital Order
617	NEW - Respiratory Distress Pulmonary Edema	Separate policy • No new changes to standing orders

		• Removal of MS from base hospital orders
618	NEW - Respiratory Distress - Opiate Overdose	NEW protocol for respiratory depression - opiate OD ADDED • Use of O2 Sat and EtCO2 (not absolute rate) to assess adequacy of respirations, need and response to Narcan NARCAN DOSING CHANGE • Adult Narcan up to 1 mg IV/IM/IN (split between nares) - assess for adequate respirations, repeat as needed (max total dose removed) • Pediatric Narcan 0.1 mg/kg IV/IM/IN (split between nares) up to 1 mg - assess for adequate respirations, repeat as needed • SL dose of Narcan changed to 0.5 mg from 0.4mg • Preference for titration and use of IV Narcan clarified
619	Shock (Medical) – Hypotension/Sepsis	Division of protocols addressing medical and traumatic causes of hypotension CHANGE • Initial Saline Bolus up to 500 mL (changed from 1 L) ○ May repeat once if hypotension persists
620	Seizure (Active)	CHANGE • IM dose of Adult Midazolam to 5 mg
621	Suspected TIA/Stroke	CHANGE • Stroke Evaluation to use "BEFAST," adds "balance" and "eyes" • Expansion of time for stroke ALERT to <6 hrs from "last seen normal" time • Clarification of need to not allow onscene treatment to delay transport of Stroke Alert patient
Environmental		
630	NEW - Bite/Sting/ Envenomation	NEW Policy

		• References Allergic Reaction Policy #611 • Added treatment for marine envenomation
631	NEW - Hyper and Hypothermia	NEW policy • Combined several old BLS policies, references ALS policies
632	Hazardous Exposure	• Moved to Haz Mat Training Standards Policy #201
Cardiac		
640	Chest Pain	ADDED to Standing orders • Topical Nitroglycerin 1 GM may be considered after initial dose(s) of SL Nitroglycerin • HOLD Nitroglycerin in presence of right ventricular infarction (RVI)
641	UPDATED - Adult/Pediatric Pulseless Arrest	UPDATED • Treatment of Pulseless Arrest Policy #641 separated from High Performance CPR (HPCPR) Procedure # 712 but treatment references between both were reconciled • HPCPR used for all arrests >1 month • No medication changes • Clarification to begin charging defibrillator at 200 compressions, while continuing CPR NEW • Pediatric arrest: o AED used for > 1 year o Stay on scene to establish vascular access, provide for airway management, and first dose of epinephrine followed by 2 min of CPR. o Minimize interruptions to < 5 seconds o Compression to ventilation ratio ▪ Newborn 3:1

		▪ 1 day to 1 month 15:2 ▪ > 1 month 10:1 o Maintain airway with BVM - Do not hyperventilate o Endotracheal intubation is no longer an approved ALS skill o Pediatric arrest are transported to the closest hospital o Changed pediatric Lidocaine to 1 mg/kg, repeat 5 min, max total dose 3 mg/kg • ROSC patient are transported to a STEMI hospital regardless of 12 Lead in adults • French Hospital is the Base Hospital contact for cardiac arrest and termination orders • Non-cardiac arrests i.e. OD and drownings, contact the closest base hospital
641 - A	Adult Pulseless Arrest Algorithm	Algorithm for adult pulseless arrest • Clarification that organized rhythm <40 BPM (adults) and <60 BPM (pediatrics) should receive an additional 2 min of CPR, then be evaluated for ROSC
641 - B	Pediatric Pulseless Arrest Algorithm	Algorithm for pediatric pulseless arrest
642	Supraventricular Tach	ADDED • Intranasal route for pediatric Midazolam in pre-cardioversion • Cardioversion dose progression: 50-70/75-100-120-150-200 • Cardioversion of unstable A-Fib with RVR added to Base Hospital Orders • A-Fib with RVR considerations: reversible causes, treatments and higher cardioversion dosing
643	V- Tach with Pulses	ADDED • Intranasal route for pediatric Midazolam in pre-cardioversion

		CHANGE • Starting energy settings in VT to 100J • Pediatric Lidocaine dosing to 0.5 mg/kg, repeat 5-10 min, max total dose 3 mg/kg
644	Bradycardia	CHANGE • Atropine for unstable pediatric cases is now a base order Epinephrine drug of choice in pediatrics with unstable bradycardia BASE ORDERS – ADULT CHANGES • Base orders similar to Ingestion/Poisoning/OD Policy Added • Atropine in "stable patients or STEMI patients not in extremis" added • Hyperkalemia o Calcium Chloride 1 Gm slow IV o Sodium Bicarbonate 1 mEq/kg IV/IO • Considerations for obtaining Base Orders for Dopamine in presence of High Degree Heart Blocks added BASE ORDERS – PEDIATRIC • Base orders similar to Ingestion/Poisoning/OD Policy Added
OB/GYN		
650	Childbirth	ADDED • Reference for seizure treatment with eclampsia CHANGED • Suctioning during delivery changed to "Suction airway as needed" o No need to suction if newborn is not distressed
651	Newborn	ADDED • CPR 3:1 for newborn • Respiratory distress – assist with BVM using room air (RA) • HR < 100 BPM - assist with BVM RA 40-60/min • HR < 60 BPM – BVM 100% O2, provide chest compressions X 1

		minute and reassess • Titrate oxygen to O2 Sat o Directions on O2 Sat assessment in newborns (Preductal) • Considerations for avoiding supplemental O2 in preterm newborns • Reference for care of meconium stained newborns per AHA guidelines (do not intubate)
Trauma A NEW series of trauma treatment policies - added		
660	NEW - General Trauma	NEW BLS • Hemorrhage control – see Tourniquet and Hemostatic Dressings Procedure # 706 for approved list of devices and dressings • Spinal motion restriction (SMR) Procedure # 702 • Pelvic binder for mechanism of injury with pelvic pain and hypotension Procedure #713 ALS • Treatment for traumatic hypotension using less volume – 500 ml boluses • Add Saline Lock to IV tubing in the unstable patient
660 - A	ADDED - General Trauma Addendum for BLS trauma care -	ADDED - List of BLS trauma treatments for: • Facial injuries • Impaled objects • Chest/Torso injuries - including occlusive dressings i.e. Asherman Seal • Abdominal injuries • Pregnancy • Extremity injuries – includes traction splint with isolated femur fracture both open or closed
661	NEW - Traumatic Arrest	Provides resuscitation guidelines for patients "with signs of life upon

		EMS arrival" NEW • No Epinephrine or Lidocaine in traumatic arrest
663	NEW - Burns	NEW • Stop burning process with "tepid" water • After stopping the burning process, fluid management, dry dressings, and pain control updated per current American Burn Life Support guidelines • Transport burns associated with trauma to Trauma Center. All others to closest hospital
Procedures		
701	ETCO2	ADDED • A reference on common wave forms

702	NEW for BLS Spinal Motion Restriction (SMR)	NEW
		• A BLS skill including clearance criteria
		• Based on Canadian Nexus criteria
		  ○ Reliable patient
		  ○ Spine pain
		  ○ Motor/Neuro exam
		• Spinal Motion Restriction (SMR) does not mandate the use of a backboard
		• Patient meeting Criteria - Apply C-Collar and secure patient for transport to minimize flexion, extension, rotation, or torsion
		  ○ SMR patients with isolated thoracic/lumbar pain or deformity do NOT require C-Collars

702-A	Attachment A – matrix for applying SMR	NEW Algorithm guidelines for SMR clearance and/or application

703	CPAP	No changes
704	Needle Cricothyrotomy	No changes
705	NEW - Needle Thoracotomy	NEW • Policy covers current practice of needle decompression at the mid-clavicular 2nd intercostal space • Base Hospital consult required for needle decompression at the mid-axillary 4th intercostal space
706	Tourniquet/Hemostatic Agents	ADDED • Approval of Hemostatic Agents for use • Removal of steps, "pressure points and elevation" prior to the application of a tourniquet in uncontrolled hemorrhage • Advises the use of pressure dressings and tourniquets for 3 minutes prior to using hemostatic agents
706-A	Attachment A - Tourniquet/Hemostatic Agents	ADDED • The approved list of tourniquets and hemostatic dressings
707	12-Lead EKG	No change
708	AED	ADDED • Pediatric use if > 1 year • Addition of 30 compressions after the analysis and shock advised, prior initiating the shock
709	Intranasal medications	ADDED • Pediatric - Intranasal volume up to 0.3ml
710	Vascular Access	CHANGES/UPDATES • Emphasizes IV as the preferred method • REMAINED: Two peripheral attempts prior to IO • REMOVED: 90 sec prior to IO attempt • ADDED: "Continue to attempt peripheral IV access after IO

		established" • REMOVED – monitoring IV with Potassium added - Potassium is not an approved drug for paramedics
711	Patient Restraints	MOVED to Procedures from Operations
712	NEW - High Performance CPR (HPCPR)	NEW - Procedure separated from treatment • Compression to ventilation for pediatric o Pediatric >1 month the same as adult 10:1 o Neonate 1 day to 1 month 15:2 o Newborn 3:1 • AED applied to patients > 1yr
Drug Formulary Changes		
Activated Charcoal	CHANGE: Standing order and no longer weight based • Adult 50 Gm PO • Pediatric 25 Gm PO REMOVED • Tricyclics from contraindications	
Atropine	CHANGE: • Pediatric Symptomatic Bradycardia – Atropine is now a Base Order • Pediatric Organophosphate OD new – 0.05 - 0.1 mg/kg IV/IM/IO	
Calcium Chloride	CHANGE: • Base Order - Adult dose for Calcium Channel Blocker OD - changed to 1 Gm • Base Order - Pediatric Calcium Channel Blocker OD – 20 mg/kg up to a max dose 500mg	
Diphenhydramine	CHANGE: no longer weight based for allergic reaction • Adult dose to 50 mg	
Glucagon	CHANGE: • Base Order - Adult dose for Beta Blocker OD – changed to 3-10 mg slow IV push (when cache available) • ADDED to Base Orders - "a bolus of oral fluid 60 seconds after Glucagon administered for esophageal foreign body obstruction"	

Lidocaine	CHANGE: • Pediatric Pulseless Arrest and V-Tach with Pluses - Lidocaine dosing to 0.5 mg/kg, repeat 5-10 min, (max total dose 3 mg/kg)
Midazolam	CHANGE: • Pediatric - Intranasal added as a route for pre-cardioversion in V-Tach and Supraventricular Tachycardia with Pulses
Naloxone	CHANGE Adult • Intranasal added as route with preference being IV • Titrate up to 1 mg IV/IMIN – repeat to maintain adequate respirations • Extremis now 0.5 mg SL may repeat to maintain adequate respirations Pediatric • Intranasal added as route with preference being IV • Titrate up to 0.1 mg/kg IV/IM/IN to a maximum dose of 1 mg may repeat to maintain adequate respirations • Extremis 0.5 mg SL - repeat to maintain adequate respirations
Nitroglycerin	ADDED • Chest Pain Protocol under standing orders – "Topical Nitroglycerin 1 GM may be considered after initial dose(s) of SL Nitroglycerin"
Oxygen	CHANGE: • Patients with oxygen saturations ≥ 94% without signs or symptoms of hypoxia or impending respiratory compromise do not need to receive O2 • When applying O2 use the simplest method to maintain O2 Sat ≥ 94% • Do not withhold O2 if patient is in extremis
Potassium	REMOVED from Drug Formulary– not an approved medications