PARAMEDIC SCOPE OF PRACTICE

California Code of Regulations, Title 22, Division 9, Chapter 4:

100145. Scope of Practice of Paramedic.

a) A paramedic may perform any activity identified in the scope of practice of an EMT-I in Chapter 2 of the Division, or any activity identified in the scope of practice of an EMT-II in Chapter 3 of this Division.

b) A paramedic shall be affiliated with an approved paramedic service provider in order to perform the scope of practice specified in this Chapter.

c) A paramedic student or a licensed paramedic, as part of an organized EMS system, while caring for patients in a hospital as part of his/her training or continuing education under the direct supervision of a physician, registered nurse, or physician assistant, or while at the scene of a medical emergency or during transport, or during interfacility transfer, or while working in a small and rural hospital pursuant to section 1797.195 of the Health and Safety Code, may perform the following procedures or administer the following medications when such are approved by the medical director of the local EMS agency and are included in the written policies and procedures of the local EMS agency.

1) Basic Scope of Practice:
   A) Perform defibrillation and synchronized cardioversion.
   B) Visualize the airway by use of the laryngoscope and remove foreign body(ies) with forceps.
   C) Perform pulmonary ventilation by use of lower airway multi-lumen adjuncts, the esophageal airway, and adult endotracheal intubation.
   D) Institute intravenous (IV) catheters, heparin locks, saline locks, needles, or other cannulae (IV lines), in peripheral veins; and monitor and administer medications through pre-existing vascular access.
   E) Administer intravenous glucose solutions or isotonic balanced salt solutions, including Ringer's lactate solution.
   F) Obtain venous blood samples.
   G) Use glucose measuring device.
   H) Perform Valsalva maneuver.
   I) Perform needle cricothyroidotomy. (not currently used in Contra Costa County)
   J) Perform needle thoracostomy.
   K) Monitor thoracostomy tubes
   L) Monitor and adjust IV solutions containing potassium, equal to or less than 20 mEq/L.
   M) Administer approved medications by the following routes: intravenous, intramuscular, subcutaneous, inhalation, transcutaneous, rectal, sublingual, endotracheal, oral or topical.
   N) Administer, using prepackaged products when available, the following medications:
      (1) 25% and 50% dextrose;
      (2) activated charcoal; (not currently used in Contra Costa County)
      (3) adenosine;
      (4) aerosolized or nebulized beta-2 specific bronchodilators;
(5) aspirin;
(6) atropine sulfate;
(7) pralidoxime chloride;
(8) calcium chloride;
(9) diazepam; (not currently used in Contra Costa County)
(10) diphenhydramine hydrochloride;
(11) dopamine hydrochloride;
(12) epinephrine;
(13) furosemide; (not currently used in Contra Costa County)
(14) glucagon;
(15) midazolam
(16) lidocaine hydrochloride;
(17) morphine sulfate;
(18) naloxone hydrochloride;
(19) nitroglycerin preparations, except intravenous, unless permitted under (c)(2)(A) of this section;
(20) sodium bicarbonate

2) Local Optional Scope of Practice:

A) Perform or monitor other procedure(s) or administer any other medication(s) determined to be appropriate for paramedic use, in the professional judgment of the medical director of the local EMS agency, that have been approved by the Director of the Emergency Medical Services Authority when the paramedic has been trained and tested to demonstrate competence in performing the additional procedures and administering the additional medications.

**CONTRA COSTA LOCAL OPTIONAL SCOPE OF PRACTICE**

The following medications and procedures are approved for use in the Contra Costa County local optional scope of practice:

- Pediatric Endotracheal Intubation *(limited to patients > 40 kg)*
- Intraosseous Infusion
- External Cardiac Pacing
- Amiodarone
- Esophageal Airway (King LTS-D)
- Heparin Infusion *(CCT-P Only)*
- Lidocaine Infusion *(CCT-P Only)*
- Nitroglycerin Infusion *(CCT-P Only)*
- KCL Infusion *(CCT-P Only)*
- Ipratropium *(CCT-P Only)*
- Midazolam Infusion *(CCT-P Only)*
- Blood/Blood Product Infusion *(CCT-P Only)*
- Glycoprotein IIb/IIIa Receptor Inhibitor Infusion *(CCT-P Only)*
- Morphine Sulfate Infusion *(CCT-P Only)*
- Sodium Bicarbonate Infusion *(CCT-P Only)*
- Total Parenteral Nutrition (TPN) Infusion *(CCT-P Only)*
ADVANCED LIFE SUPPORT SKILLS LIST

The following skills may be performed by Contra Costa County paramedics following treatment guidelines or base hospital orders:

1. Adult oral endotracheal intubation
2. Esophageal Airway (King LTS-D)*
3. Removal of foreign body obstruction with magill forceps
4. Defibrillation
5. Cardioversion
6. Intravenous therapy
7. Drug therapy (see drug list)
8. Needle thoracostomy
9. Intraosseous infusion*
10. Pediatric oral endotracheal intubation* (limited to patients > 40 kg)
11. Use of pulse oximeter
12. End-tidal CO₂ monitoring (ETCO₂)
13. Glucose Testing
14. External Cardiac Pacing*
15. 12-Lead ECG
16. Continuous Positive Airway Pressure (CPAP)

* Only paramedics who are currently accredited in Contra Costa County may perform these skills.
AIRWAY MANAGEMENT

The goal of airway management is to ensure adequate ventilation and oxygenation. Initial airway management should **always** begin with BLS maneuvers.

- BLS airway management is the **preferred method** in all patients who can be adequately ventilated (visible chest rise) using bag-mask ventilation.
- All cardiac arrest patients should have initial BLS airway management. Advanced airway management should not interfere with initial CPR and defibrillation efforts.
- **Intubation should not be used in pediatric patients weighing less than 40 kg.**
- **Intubation should not be used in trauma patients** (arrest or non-arrest) unless BLS airway management has failed to produce adequate ventilation.

**Initial BLS airway maneuvers are to include:**

- Follow the “JAWS” mnemonic:
  - J  Use **jaw thrust** maneuvers to open airway
  - A  Use oral or nasal **airway**
  - W  **Work together.** Ventilation using a bag-valve mask is enhanced using two rescuers to manage airway
  - S  **Slow** and **small** ventilations

- Ventilation Rates (avoid hyperventilation):
  - Adults – 10/minute
  - Children – 20/minute
  - Infants (< 1 yr) – 30/minute

- Deliver ventilation over one second to produce **visible chest rise** and to avoid distention of the stomach (do not squeeze hard or fast). Ventilation volumes will vary based on patient size.

- Position the patient to optimize airway opening and facilitate ventilations:
  - Use **“sniffing” position** – head extended (A) and neck flexed forward (B) – unless suspected spinal injury.
  - Position with head/shoulders elevated – **anterior ear at same horizontal level as sternal notch** (C). This is especially advantageous in larger or morbidly obese patients.
Avoid prolonged / multiple interruptions in ventilation:
- Interrupt ventilation for no more than two periods of up to 30 seconds during laryngoscopy or intubation attempt
- No more than two (2) endotracheal intubation attempts should be made
- Endotracheal Tube Introducer (ETI / bougie) may be helpful on first or second attempt
- Oxygenate using BLS techniques for 60 seconds (if possible) between attempts (ET or Rescue Airway)

Initial BLS Maneuvers

Patient apneic or unable to maintain BLS airway

Prepare intubation equipment, including ETI (bougie) and rescue airway

Initial BLS Maneuvers

Adequate ventilation

BLS Airway Management

Laryngoscopy – Consider initial ETI use if difficult airway anticipated

Cords visualized

ET Attempt #1: Pass tube and check tube position

Correct position verified

Secure Tube

Cords not visualized

Correct position not verified

Resume BLS Airway Management

Consider ETI for second attempt

ET Attempt #2: Pass ETI / tube, check tube position

Correct position verified

Resume BLS Airway Management

Laryngoscopy not possible or likely futile

If second ET attempt omitted

ET Attempt #2: Pass ETI / tube, check tube position

Correct position not verified

Resume BLS Airway Management

Rescue Airway Placement (maximum 2 attempts)

Correct position not verified

BLS Airway Management

Tube verification / monitoring:
- Check end-tidal CO₂ initially (colorimetric or capnography)
- If ETCO₂ is negative, use Esophageal Detector Device (EDD) with endotracheal tubes
- View chest rise / listen for lung sounds and gastric sounds
- All intubated patients require continuous ETCO₂ monitoring until transfer of patient care at hospital
- Documentation of findings is critical