



# 2021 Patient Treatment Protocols

Effective January 1, 2021

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# PREFACE

## EMS Provider Scope of Practice

The Oregon Medical Board is responsible for the scope of practice of Emergency Medical Service Providers as well as the requirements and duties of these providers' supervising physicians (EMS Medical Directors).

To view the complete Scope of Practice, see Oregon Administrative Rule (OAR) 847-035-0030.

**Scope of Practice: Each EMS Provider can perform the procedures of each lower level certification plus those listed in their certification level.**

### Airway and Breathing

Emergency Medical Responder	Emergency Medical Technician	Advanced EMT	EMT-Intermediate	Paramedic
<ul style="list-style-type: none"> <li>BVM</li> <li>NPA</li> <li>OPA</li> <li>Pharyngeal suctioning</li> </ul>	<ul style="list-style-type: none"> <li>Supraglottic airway device</li> <li>Tracheo-bronchial suctioning of ET tube</li> <li>Ventilator</li> </ul>			<ul style="list-style-type: none"> <li>Cricothyrotomy</li> <li>Endotracheal intubation</li> </ul>

### Pharmacological Intervention

Emergency Medical Responder	Emergency Medical Technician	Advanced EMT	EMT-Intermediate	Paramedic
<ul style="list-style-type: none"> <li>Aspirin for cardiac</li> <li>Epi by auto-injector for anaphylaxis</li> <li>Naloxone via IN device or auto-injector</li> <li>Oral Glucose</li> <li>Oxygen</li> </ul>	<ul style="list-style-type: none"> <li>Activated charcoal</li> <li>Epi by IM injection for anaphylaxis</li> <li>Nebulized albuterol and/or DuoNeb</li> <li>Nitroglycerine (assist patient with own NTG)</li> <li>Pralidoxime and Atropine by autoinjector for organophosphate agents</li> </ul>	<ul style="list-style-type: none"> <li>Dextrose, hypertonic</li> <li>Glucagon</li> <li>IO lidocaine (anesthetic)</li> <li>Ipratropium</li> <li>Isotonic IV solutions</li> <li>Naloxone</li> <li>Nitroglycerine</li> <li>Nitrous oxide</li> </ul>	<ul style="list-style-type: none"> <li>Amiodarone</li> <li>Atropine</li> <li>Diphenhydramine</li> <li>Epinephrine</li> <li>Fentanyl</li> <li>Furosemide</li> <li>Lidocaine</li> <li>Morphine</li> <li>Vasopressin</li> <li>Zofran</li> </ul>	<ul style="list-style-type: none"> <li>Administer medications authorized by protocol or physician's direct order</li> </ul>



## EMS Provider Scope of Practice and Nomenclature

## Medical/Cardiac Care

Emergency Medical Responder	Emergency Medical Technician	Advanced EMT	EMT-Intermediate	Paramedic
<ul style="list-style-type: none"> <li>• AED / SAED</li> <li>• Hemorrhage Control</li> </ul>	<ul style="list-style-type: none"> <li>• Blood glucose monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Blood draws</li> <li>• Start IO's in pediatrics and adults</li> <li>• Start IVs or saline locks</li> </ul>	<ul style="list-style-type: none"> <li>• EKG interpretation</li> <li>• Manual defibrillation</li> <li>• Orogastric tube</li> </ul>	<ul style="list-style-type: none"> <li>• Access indwelling catheters and implanted central IV ports</li> <li>• Cardioversion</li> <li>• Nasogastric tube</li> <li>• Needle Thoracostomy</li> <li>• Transcutaneous Pacing</li> </ul>

## EMS Provider Nomenclature

The term “EMS Provider” has replaced the term “EMT” to describe all scope of practice levels. The term “EMT” now refers to the level formerly called “EMT-Basic.” Per Oregon Administrative Rules 333-265-0000 (Definitions) and Oregon Revised Statute Chapter 682 the terms have changed as follows:

Old	New
Did not exist	Advanced Emergency Medical Technician (AEMT or Advanced EMT) • Is not used in these protocols
EMT	Emergency Medical Services Provider or EMS Provider
EMT-B	EMT or Emergency Medical Technician
EMT-I	Remains the same (or EMT-Intermediate)
EMT-P	Paramedic
First Responder	Emergency Medical Responder or EMR

## Death in the Field

### Purpose:

To define under what conditions treatment can be withheld or stopped.

#### A. Resuscitation efforts may be withheld if:

1. The patient has a “DNAR” order.
2. The patient is pulseless and apneic in a mass casualty incident or multiple patient scene where the resources of the system are required for the stabilization of living patients.
3. Decapitation.
4. Rigor mortis in a warm environment.
5. Decomposition.
6. Skin discoloration in dependent body parts (dependent lividity).

#### B. Traumatic Cardiac Arrest

1. A victim of trauma (blunt or penetrating) who has no vital signs at the scene may be declared dead. If opening the airway does not restore vital signs/signs of life, the patient should NOT be transported unless there are extenuating circumstances.
2. A cardiac monitor may be beneficial in determining death in the field when you suspect a medical cause or hypovolemia:
  - a. An organized rhythm may suggest profound hypovolemia and/or tension pneumothorax, and may respond to fluid resuscitation and/or needle decompression, respectively.
  - b. VF should raise your index of suspicion for a medical event.
3. At a trauma scene consider the circumstances surrounding the incident, including the possibility of cardiac arrhythmia, seizure, or hypoglycemia. When a medical event is suspected, treat as a medical event.
4. If the patient deteriorates to no vital signs (i.e., no pulse/respiration), a cardiac monitor should be applied. A viable rhythm especially in patients with penetrating trauma may reflect hypovolemia or obstructive shock (tamponade, tension pneumothorax) and aggressive treatment should be continued.
5. If a patient deteriorates to cardiac arrest during transport, perform CPR and notify the trauma facility.

**C. Medical Cardiac Arrest**

- 1.** If the initial EKG shows asystole or agonal rhythm confirmed in 6 leads with full gain, and the patient in the responder's best judgment would not benefit from resuscitation:
  - a.** The PIC may determine death in the field; OR
  - b.** Begin BLS procedures, and contact OLMC with available patient history, current condition, and with a request for advice regarding discontinuing resuscitation.
- 2.** The PIC may determine the patient to be dead in the field if the patient persists in asystole (confirmed in 6 leads with full gain) after the airway is established, and the asystole protocol has been exhausted.
- 3.** Death in the field may be determined with EtCO<sub>2</sub> of < 10 in patients with PEA after 20 minutes of ACLS resuscitation. For patients with EtCO<sub>2</sub> > 10 either continue resuscitation or contact OLMC to stop resuscitation.
- 4.** Patients in VF should be treated and transported.

**Notes and Precautions**

- A.** ORS allows a layperson, EMT or paramedic to determine "Death in the Field."
- B.** Consult OLMC with any doubt about the resuscitation potential of the patient.
- C.** A person who was pulseless or apneic and has received CPR and has been resuscitated is not precluded from later being a candidate for solid organ donation.

## Dying and Death, POLST, and Do Not Attempt Resuscitation Orders

### A. POLST ORDERS AND DECISION MAKING

1. In the pulseless and apneic patient who does not meet DEATH IN THE FIELD criteria, but is suspected to be a candidate for withholding resuscitation, begin CPR and contact OLMC.
2. A patient with decision-making capacity or the legally authorized representative has the right to direct his or her own medical care and can change or rescind previous directives.
3. EMS providers may honor a Do Not Attempt Resuscitation (DNAR) order signed by a physician, naturopathic physician, nurse practitioner, or physician assistant. DNAR orders apply only to the patient in cardiopulmonary arrest and do not indicate the types of treatment that a person not in arrest should receive. POLST was developed to convey orders in other circumstances.
4. Physician Orders for Life-Sustaining Treatment (POLST):
  - a. The POLST was developed to document and communicate patient treatment preferences across treatment settings. While these forms are most often used to limit care, they may also indicate that the patient wants everything medically appropriate done.  
**Read the form carefully!**
  - b. When signed by a physician (MD or DO), naturopathic physician, nurse practitioner, or physician assistant, POLST is a medical order and EMS providers are directed to honor it in their Scope of Practice unless they have reason to doubt the validity of the orders or the patient with decision-making capacity requests change. If there are questions regarding the validity or enforceability of the health care instruction, begin BLS treatment and contact OLMC [OAR 847-035-030 (7)].
  - c. If the POLST is not immediately available, a POLST form as documented in the Electronic POLST registry hosted at MRH (503-494-7333) may also be honored.
    - **Section A:** Applies only when patient is in cardiopulmonary arrest
    - **Section B:** Applies in all other circumstances
    - For a POLST form to be valid it must include:
      - i. Patient's name
      - ii. Date signed (forms do not expire)
      - iii. Health care professional's signature (patient signature is optional)
5. The legally authorized representative may make decisions for the patient who is unable to make medical decisions. However, when in doubt or for unresolved conflict on the scene contact OLMC. The order is:
  - a. A legal guardian
  - b. A power of attorney for health care as designated by the patient on the Oregon advance directive
  - c. Spouse or legal domestic partner
  - d. Adult children
  - e. Parent

## Dying and Death, POLST, and Do Not Attempt Resuscitation Orders

### 6. Death with Dignity

If a person who is terminally ill and appears to have ingested medication under the provisions of the Oregon Death with Dignity Act, the EMS provider should:

- a. Provide comfort care as indicated.
- b. Determine who called 9-1-1 and why (i.e., to control symptoms or because the person no longer wishes to end their life with medications).
- c. Establish the presence of DNAR orders and/or documentation that this was an action under the provisions of the Death with Dignity Act.
- d. Contact OLMC.
- e. Withhold resuscitation if: DNAR orders are present, and there is evidence that this is within the provisions of the Death with Dignity Act and OLMC agrees.

### B. PATIENTS ENROLLED IN HOSPICE AND DYING PATIENTS

1. Look for POLST forms (contact Registry if needed) and attempt to honor patient preferences. Always provide comfort measures.
2. If patient is enrolled in hospice and the patient has not already done so, contact hospice if possible.
3. EMS providers cannot take medical orders from a hospice nurse but their advice is often invaluable and may be followed with direction from OLMC.
4. Treat dying persons with warmth and understanding. Do not avoid them. Allow them to discuss their situation, but do not push them to talk.
5. Many dying people are not upset by discussions of death as long as you do not take away all of their hope.
6. Touching a dying person is important. Use words like “death.” Do not use meaningless synonyms.
7. Ask the person how you might help.
8. Give factual information.
9. Be aware of your own fears regarding death and admit when a dying person reminds you of a loved one. If a particular person is too disturbing, have other members of the responding team take over.
10. Consider providing pain/symptom management and not transporting patient if they are Comfort Measures Only, the symptoms can be managed, and the patient and caregivers on scene do not want transport to the hospital. Consider OLMC contact for advice.

### C. CARE OF GRIEVING PERSONS

#### Resuscitation phase

1. As time allows give accurate and truthful updates about the patient’s prognosis. If available, assign one person to interact with and support family members.
2. Consider gently removing children from the resuscitation area.
3. Depending upon the emotional state of family members, consider allowing them to watch and/or participate in a limited and appropriate way.

## Dying and Death, POLST, and Do Not Attempt Resuscitation Orders

4. If family or friends were doing CPR prior to your arrival, commend their efforts.
5. If family or friends are disruptive consider removing them or try assigning simple tasks, such as helping bring in the stretcher, telling other family about the event, and calling the doctor or minister.
6. Be respectful. Make requests. Don't give orders.

### Once death is determined

- a. Treat the recently dead with respect.
- b. Tell family and friends of the death honestly. Use the words "death" or "dead." Avoid using euphemisms such as "passed away" or "gone."
- c. Avoid using past tense terms when speaking to survivors of the recently dead.
- d. Allow family and friends to express their emotions. Listen to them if they want to talk but don't push them.
- e. Give factual information.
- f. Genuine warmth and compassion will be more helpful than almost anything else for survivors. Don't feel it necessary to say the "right" things. Listening often provides grieving people with the most comfort.

### Focusing on survivors

- a. See to it that survivors have a support system present before you leave. Consider calling TIP through EMS Dispatch. Call friends, family, clergy, or neighbors to be with them. Respect the survivors' wishes to be alone.
- b. Explain the next steps to them after you have pronounced death. This will include the police coming to make reports, possibly the medical examiner, and the possible need for an autopsy.
- c. Before moving or altering the body, contact the Medical Examiner's office as soon as possible.
- d. Allow family and friends to say their good-byes if possible.
- e. A chaplain may be helpful in assisting with survivors. Call early, as chaplains do not have code-3 capabilities.
- f. Help survivors make decisions such as which people should be called. If they ask you to make calls, try to comply. Mention the need to find a funeral home, if one has not been chosen. Clergy may also be helpful with this decision.

## C. DEATH OF A CHILD

1. Do not accuse the parents of abuse or neglect, but note carefully the patient's surroundings and the general physical condition of the child.
2. Do not be overly silent, which may imply guilt to the parents.
3. Ask the parents only necessary questions and do not judge or evaluate them. Do not tell them what they "should have" been doing before your arrival.
4. Remind parents to arrange for child care of other children.
5. Listen carefully to their statements and answer with accurate information.
6. If there is a police investigation, tell the parents that this is routine.
7. Successful management of child deaths requires supportive, compassionate, and tactful measures.

## Medical Control for Drugs and Procedures

### Policy:

If a patient receives a procedure or medication; is conscious (or regains consciousness); and refuses transport, every effort shall be made to encourage transport of the patient. If the patient persists in refusing transport, see the *Non-Transport* procedure.

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These protocols contain Category A and B drugs and procedures. Before using any Category B drug or procedure you **must** contact OLMC. If the EMS Provider is unable to contact OLMC, Category B drugs or procedures should be administered as indicated in the protocol. If a Category B drug or procedure is used without OLMC contact, **a written report must be sent to the Medical Director or Physician Supervisor**. Continued attempts must be made to reach OLMC en route.

### Category A:

Drug or procedure will be used at the EMS Provider's discretion in accordance with the standing orders.

#### Drugs:

Acetaminophen	Ketamine
Activated Charcoal (ASA and APAP only)	Ketorolac (Toradol®)
Adenosine (Adenocard®)	Lidocaine (Xylocaine®)
Albuterol	Magnesium Sulfate
Albuterol (Hyperkalemia)	Midazolam (Versed®)
Alprazolam (Xanax)	Morphine
Amiodarone	Naloxone (Narcan®)
Ammonia Inhalant	Nitroglycerin
Aspirin	Norepinephrine (Levophed®)
Atropine Sulfate	Olanzapine (Zyprexa®)
Calcium Gluconate	Ondansetron (Zofran®)
Dexamethasone (Decadron®)	Oxymetazoline hydrochloride (Afrin)
Dextrose 10%	Oxygen
Dextrose 50%, IV	Pralidoxime (Protopam/2-PAM)
Diphenhydramine (Benadryl®)	Prochlorperazine (Compazine)
Epinephrine	Rocuronium Bromide
Etomidate (Amidate®)	Sodium Bicarbonate
Fentanyl (Sublimaze)	Sodium Thiosulfate
Furosemide (Lasix®)	Succinylcholine
Glucagon	Sufentanil (Sufenta)
Glucose, Oral	Tranexamic Acid (TXA)
Haloperidol (Haldol®)	Vasopressin
Hydroxocobalamin (Cyanokit®)	Vecuronium Bromide (Norcuron®)
Ibuprofen	Xylocaine, Viscous
Ipratropium (Atrovent®)	Ziprasidone (Geodon)
IV Solutions	

**Category A:****Procedures:**

Chemical Patient Restraint  
 Continuous Positive Airway Pressure (CPAP)  
 End-Tidal CO<sub>2</sub> Monitoring  
 Endotracheal Intubation  
 i-gel  
 Induced Hypothermia  
 Intraosseous Infusion  
 Intravenous Lines and IV Solutions (Management of)  
 Intravenous Solutions (Control and Monitoring of)  
 King LT-D/LTS-D Airway Device  
 Left Ventricular Assist Device  
 LUCAS  
 Paralytic Intubation: Advanced Airway Training Required  
 Physical Patient Restraint  
 Self-Care Instructions  
 Pelvic Wrap  
 Selective Spinal Immobilization  
 Sports Equipment Removal  
 Surgical Cricothyrotomy  
 Synchronous Cardioversion  
     A. Unstable V-Tachycardia, OR  
     B. SVT, unstable patient with BP less than 90 mm/Hg  
 Taser Barb Removal  
 Tension Pneumothorax Decompression  
 Transcutaneous Pacing  
 Video Laryngoscope

**Category B:**

Drug or procedure, not included in Category A, shall be initiated by request from EMS Provider to OLMC. Confirmation of dosage or procedure will be obtained directly from a Physician on Duty at OLMC.

**Drugs:**

Activated Charcoal (All other ingestions < 2 hours old)  
 Calcium Gluconate (Calcium Channel Blocker OD)  
 Glucagon (Beta-blocker OD)  
 Magnesium Sulfate (OB/GYN and asthma)  
 Sodium Bicarbonate (Cyclic antidepressant OD)

**Procedures:**

Automatic Implantable Cardio-Defibrillator Deactivation (AICD)



## Required Multnomah County Medications

- Activated Charcoal: 25 grams
  - Adenosine: 6 mg, 12 mg (3 mg/mL)
  - Albuterol: 2.5 mg/3 mL
  - Alproazolam (Xanax) 0.25 mg tablets
  - Amiodarone: 150 mg/3 mL
  - Aspirin: 81 mg tablets
  - Atropine: 1 mg/10 mL
  - Calcium Gluconate: 10% (100 mg/mL)
  - Dexamethasone: 10 mg/mL
  - Dextrose:
    - 10%, 250 mL (0.1 g/mL)
    - 50%, 50 mL (0.5 g/mL)
    - Oral, 24 gram
  - Diphenhydramine: 50 mg/mL
  - Epinephrine:
    - 1:1,000, 1 mg/mL
    - 1:10,000, 1 mg/10 mL
  - Etomidate: 40 mg (2 mg/mL)
  - \*Fentanyl: 100 mcg/2 mL
  - Furosemide: 40 mg/4 mL
  - Glucagon: 1 mg/mL
  - Haloperidol: 5 mg/mL
  - Ipratropium: 0.5 mg/2.5 mL
  - \*Ketamine: 500 mg/10 mL
  - \*Ketorolac: 30 mg/mL
  - Lidocaine:
    - 2%, 100 mg/5 mL
    - 2%, Viscous Jelly
  - Magnesium Sulfate 50%: 1 g/2 mL
  - \*Midazolam: 10 mg/2 mL
  - Naloxone: 2 mg/2 mL
  - Nitroglycerin:
    - Tablets, 0.4 mg
    - IV Nitroglycerin 50 mg/10 mL
  - Norepinephrine: by IV infusion pump only
  - Olanzapine:
    - Tablets, 10 mg
  - Ondansetron:
    - 4 mg/2 mL
    - Tablets, 4 mg
  - Prochlorperazine (Compazine):
    - 10 mg/2 mL
  - Rocuronium Bromide:
    - 10mg/mL (5 mL, 10mL)
    - [9-1-1 Responding Units Only]*
  - Sodium Bicarb: 50 mEq/50 mL
  - Succinylcholine: 20 mg/mL
    - [9-1-1 Responding Units Only]*
  - \*Sufentanil (Sufenta): 50 mcg/1 mL
  - Tranexamic Acid (TXA): 1 gram/10 mL
  - Vasopressin: 20 U/mL
  - Vecuronium: 10 mg-powder (1 mg/mL)
    - [9-1-1 Responding Units Only]*
  - Ziprasidone: 20 mg/mL
- \* Must be locked and counted at each shift change

## Special Operations Medications

- 6% hetastarch in buffered electrolyte HET (Hextend®): 6% in 500 mL
- Pralidoxime (Protopam/2-PAM)
- Proparacaine Hydrochloride Ophthalmic Solution USP, 0.5%

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### NOTE:

Alternative formulations allowed with approval of EMS Medical Director.