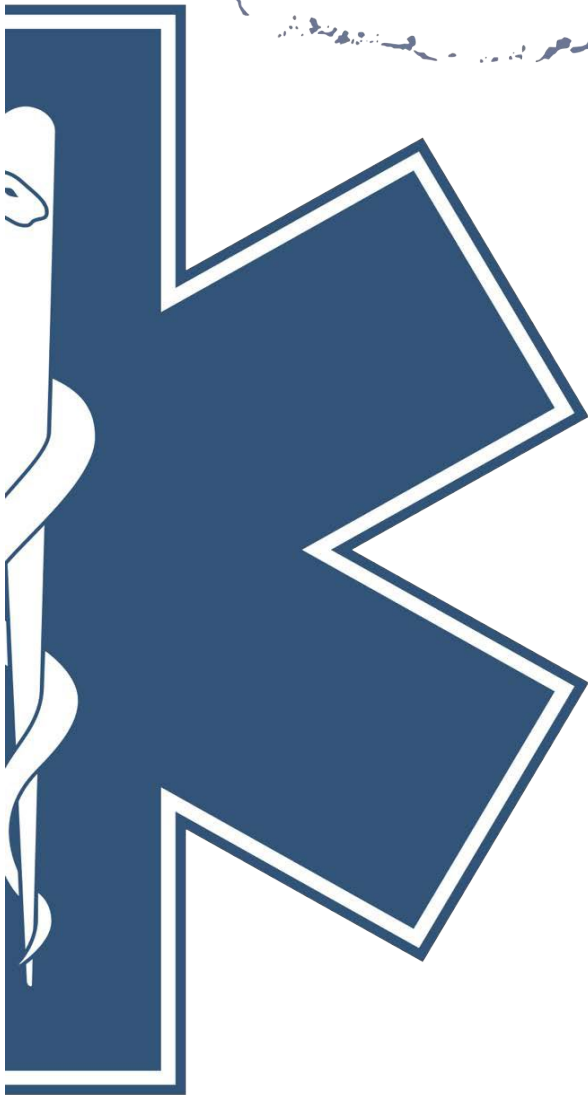
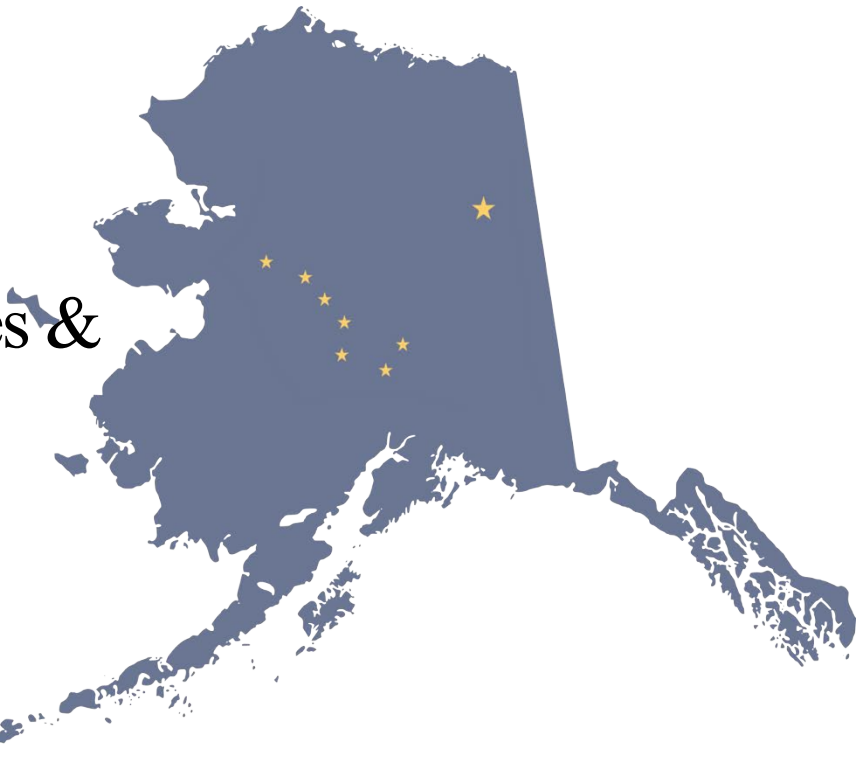


Alaska EMS

EMT-I

Course Objectives & Alaska-Specific Lesson Content.



Alaska Council on EMS Committees:
EMS Training Committee and Implementation Task Force
in cooperation with the
State of Alaska Department of Health and Social Services
Division of Public Health
Section of Rural and Community Health Systems Office of
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TABLE OF CONTENTS

PREFACE	2
Lesson 1: PREPARATORY	4
EMS Systems, Research, and Public Health	4
Workforce Safety and Wellness	5
Documentation National Education Standards:	5
Therapeutic Communication	6
Medical/Legal.....	8
Lesson 2: PHARMACOLOGY – Medication Administration & Emergency Medications	11
Lesson 3: Medicine	13
Abdominal and Gastrointestinal Disorders.....	13
Infectious Disease.....	14
Cardiovascular Emergencies	14
Toxicology.....	15
Lesson 4: Shock and Resuscitation	16
Lesson 5: Trauma	18
Environmental Emergencies	18
Lesson 6: Pediatric Emergencies	19
Lesson 7: Geriatric Emergencies	20
Lesson 8: EMS Operations	21

PREFACE

The mission of the EMT-I training is to allow Alaskan communities to provide basic emergency medical care. Alaska EMT-I consists of a curriculum approved by the department that meets or exceeds applicable objectives set out in the United States Department of Transportation, National Highway Traffic Safety Administration's National Emergency Medical Services Education Standards, January 2009, with the addition of certain skills and knowledge applicable to the Alaskan environment. The base objectives and lesson plans may be found in the Emergency Medical Technician Instructional Guidelines developed by NHTSA to meet the National Emergency Medical Services Education Standards.

https://www.ems.gov/pdf/education/National-EMS-Education-Standards-and-Instructional-Guidelines/EMT_Instructional_Guidelines.pdf. The Alaska specific objectives and lesson plans are included in this document. Please use **both** documents to teach an Alaska EMT-I course.

Section [7 AAC 26.040](#) of the Alaska Administrative Code (regulations) defines the scope of certified activities on which the objectives in this document are based. [7 AAC 26.050](#) sets forth the criteria for EMT-I course approval, including requiring that EMT-I courses be at least 140-160 hours in length. This document divides the course content into "sections," each of which has a recommended length. The times for each section are estimates only and will vary with the students' and system's needs.

The instruction of medications and procedures which are not covered in the EMT-I scope of certified activities will, of course, require an increase in the number of hours taught. Steps to have additional medications or procedures approved by the Department of Health and Social Services are outlined in [7 AAC 26.670](#) and should be read and understood by local physician medical directors, EMS instructors and system administrators.

Agencies which contract with EMT1 instructors for training should carefully consider the local scope of activities when developing proposals and contracts. While 140-160 hours is adequate to teach core EMT-I material, it is not sufficient to teach the additional skills and procedures used in many communities. Increased attrition and substandard care are likely to result if the training program is of insufficient quality or length. The recommended durations of the sessions include ample time for instructor-developed quizzes and other opportunities for the instructor and learners to assess skills and knowledge acquisition. The addition of skills and procedures at the local level must be carefully considered and implemented in a medically and administratively appropriate manner by the physician medical director.

The emergency cardiac medications and procedures in this course are intended to be taught in a manner consistent with the American Heart Association's recommendations for Emergency Cardiac Care. In the event that the contents of the course deviate from current recommendations regarding emergency cardiac medications and procedures within the EMT-I Scope of Certified Activities, current Emergency Cardiac Care recommendations will take precedence, except if specific protocols for the area of conflict, (i.e Cold Injuries Guidelines).

This supplemental curriculum outlines what state-specific knowledge and skills are expected of an Alaska EMT-I. It does not prohibit the physician sponsor from specifying the scope of activities, whether that be limiting practice to a subset of the EMT-I skills or expanding the EMT-

l's skills in accordance with 7 AAC 26.670. Evolving issues should be covered thoroughly by the instructor.

Psychomotor skills in which the EMT-I should be proficient are established in the Alaska Scope of Practice and elaborated in the Alaska Psychomotor Skills Portfolio.

Lesson 1: PREPARATORY

National Education Standards:

Applies fundamental knowledge of the EMS system, safety/well-being of the EMT, and medical/legal and ethical issues to the provision of emergency care.

EMS Systems, Research, and Public Health

Alaska Specific Objectives:

- 1.1 Describe Alaska's EMS system.
- 1.2 Discuss the historical development of Alaska's EMS system.
- 1.3 Identify Alaska's patient care guidelines
- 1.4 Reviewing data from Alaska Epidemiology and Trauma Sections, describe five of the most prevalent injuries in Alaska and management considerations for each

Lesson Content:

- A. Certification, Training, and Recertification
 1. Discuss Grounds to Suspend, Revoke, or Deny Certification or Recertification (7 AAC 26.950).
 2. Discuss AED training regulations (7 AAC 26.585).
 3. Describe the requirements for domestic violence and sexual assault training (AS 18.66.310).
 4. Discuss state approved CPR credentials (7 AAC 26.985, CHEMS website).
- B. The Alaskan Medical System
 1. Discuss the historical development of Alaska's EMS system.
 2. Describe Alaska's healthcare delivery system.
 - a) Receiving Facilities: Hospitals, Medical Centers, and Clinics
 - b) Regional hubs
 - c) Transport distances and locations
 - 1) Ground and air medical transport
 - 2) Communication and Transportation Challenges
 3. Describe the Community Health Aide Program (CHAP) in Alaska, and implications for EMS.
 4. Explain the Trauma System and levels of receiving facilities.
 5. Describe locations of Specialty Centers, including burns, cardiac, neuro (stroke), pediatrics, neonatal, maternal-fetal, psychiatric, etc.
 - a) Explain logistical issues and challenges related to accessing specialty care
 6. Explain the role of the Alaska EMS for Children's (EMS-C) pediatric specialist resources for coordinating the care of ill and injured children.
 7. Discuss the value of the continuum of care and transport of patients in remote locations.
 8. List available resources for translation in patient care.
- C. Outline the EMS system in Alaska:

1. Hub: State office, ACEMS and its committees,
 - a) Medical Direction Committee
 - b) EMS for Children
 - c) Training committee
 - d) Spokes: regional office
 - e) Wheel: EMS instructors and responders
2. Distinguish each of the following Alaska EMS levels: ETT, EMT1, EMT2, EMT2, AK(AEMT), MICP
 - a) Include the Scope of Practice for each level
 - b) Explain implications of expanded scope within each level
 - c) Discuss scope of practice when not with a service
3. Enumerate Alaska air medevac resources.
4. Identify the Alaska Medical Board as the seat of power for all things paramedic, except training.
5. Describe the value of "Guide for EMS Certification and Licensure Manual- including Appendix A (Referenced in the 2019 Regulations)
6. Alaska Patient Care Guidelines:
 - a) Cold Injuries Guidelines.
 - b) Alaska Head Injury Guidelines for adult and pediatric patients
 - c) NASEMSO Model Clinical Guidelines.

Workforce Safety and Wellness

Alaska Specific Objectives

- 1.5 Discuss Alaska State OSHA regulations as they pertain to the EMT.

Documentation

National Education Standards:

Applies fundamental knowledge recording patient findings, principles of medical documentation and report writing.

Alaska Specific Objectives

- 1.6 Describe the CARES registry for Cardiac Arrest data system.
- 1.7 Patient Care Reporting- Discuss the AURORA Patient Care Reporting System
- 1.8 Discuss the EMT's role in trauma data reporting
- 1.9 List the injuries and suspicions which must be reported in Alaska, the time frames and format for reporting, and to whom the reports must be made

Lesson Content:

- A. Describe the CARES registry for Cardiac Arrest data and the implications for Alaska's EMS system.
 1. The CARES registry was developed to gain a better understanding of cardiac arrest treatment in the field.

2. CARES data helps communities and EMS agencies determine how to prioritize equipment, training, and protocols for cardiac arrest.
 3. Alaska is a member of CARES registry. For more information, see: <https://www.healthypeople.gov/2020/data-source/cardiac-arrest-registry-to-enhance-survival> and <https://mycares.net/>.
- B. Patient Care Reporting: Discuss the AURORA (Alaska Uniform Response Online Reporting Access) Patient Care Reporting system
1. Since 2008, AURORA has served as the state of Alaska's web-based and field EMS data collection system for the State electronic patient care reporting (ePCR) system.
 2. AURORA provides for local patient care reporting, and state and federal data collection needs.
 3. AURORA stands for Alaska Uniform Response Online Reporting Access, and was named in a statewide contest in 2008. The platform is now known as AURORA Elite. (Elite is the new platform provider by the vendor to meet the federal requirements for EMS data collection)
 4. An individual service may link or upload EMS data from its own ePCR, or choose to directly enter data into AURORA for its ePCR and data reporting needs.
 5. The website for AURORA is <https://www.imagetrendelite.com/Elite/Organizationalaska/>. The training module on AURORA will be available on the Instructor Repository.
- C. Trauma Registry in Alaska
1. Discuss the EMT's role in trauma data reporting

Therapeutic Communication

Alaska Specific Objectives

- 1.10 Cultural competence and humility
- 1.11 Explain the various Alaskan cultural values and traditions that may influence patient caregiver interactions and patient expectations.
- 1.12 Demonstrate culturally competent interviewing techniques for patients from prevalent cultural groups in Alaska.

Lesson Content

- A. Alaska is a diverse state, with numerous Alaska Native Cultural Groups and languages (<http://www.alaskool.org/language/languagemap/index.html>), alongside people from multiple other geographic areas and non-indigenous cultures. Embodying cultural awareness, cultural competence, and cultural humility throughout the course allows the instructor to model the behavior and attitudes the EMT will need to be successful in prehospital healthcare.
- B. The instructor should be familiar with The National Association of EMS Educators Position Paper The Impact of Cultural Humility in Prehospital Healthcare Delivery and Education (<https://pubmed.ncbi.nlm.nih.gov/31906776/>), also available in the Alaska Instructor Repository. Review information from this paper with your class and encourage discussion, individually and as a group, on elements learners find relevant.
- C. Culture definition

1. Sum total of the way people live
 - a) Values
 - b) Language
 - c) Basic communication
 - d) Social structure
 - e) Environment
 - f) Ways of making a living
 - g) Level of technology
 - h) Climate
 2. Culture is what makes a group of people who they are
 3. Hidden personal "ID Card" is what makes an individual who they are
 - a) Name
 - b) Age
 - c) Gender
 - d) Ethnicity
 - e) Parents
 - f) Marital Status
 - g) Religion
 - h) Schools
 - i) Language
 - j) Job
 - k) Experiences
 - l) Where they grew up
 - m) Where do they live now
 - n) Social interactions
 4. Ethnocentricity
 - a) We rarely question our own cultural identity
 - b) We naturally assume our rules, values and beliefs to be correct
 - c) We tend to judge negatively those who are different
 - d) Based on our own cultural programming, we attach meaning to behaviors
 - e) We may not know when we are offending others
- D. Understanding culture- Why is it important?
1. Helps provider understand how others interpret their environment
 2. Helps provider avoid stereotypes and biases
 3. Enhances communication
- E. Cultures are alive and constantly changing
1. There is diversity among cultures and within cultures
- F. Cultural diversity
1. "Salad Bowl" rather than "Melting Pot"
 - a) Cultures maintain their unique characteristics
 - b) Cultures combine to change the "flavor" of a community
 2. 1940-70% of immigrants came from Europe
 3. 1992 37% from Asia; 44% from Latin America and Caribbean; only 15% from Europe
 4. Today- greater than 100 ethnic and over 500 indigenous groups
- G. Improving your understanding of culture
1. Understand your own culture. Basic areas to examine include:

- a) Values
 - b) Communication variances
 - c) Cultural sanctions and restrictions
 - d) Health-related beliefs and practices
 - e) Nutrition
 - f) Cultural aspects of disease incidence
 - g) Social determinants of health
- H. Communication & Respecting Diversity
- 1. Pay attention to body language
 - 2. Avoid using idioms (i.e., “You hit the nail on the head” instead of “You are exactly right”)
 - 3. Refrain from taking others behavior personally
 - 4. Understanding vs. stereotyping
 - 5. Avoid labeling individuals simply because of your cultural expectations
- I. Ideas for teaching cultural humility include:
- 1. Discuss with your class the specific cultures in your response area or statewide.
 - 2. Ask elders or leaders of local community or cultural groups or patient advocacy groups to speak with your class about the impact of cultural humility in prehospital healthcare.
 - 3. Assign students to interview community members about positive and negative healthcare interactions they have experienced.
 - 4. Include components into the patient care simulations and scenarios you run in your class to provide learners with opportunities to practice culturally competent interviewing techniques.
 - 5. Throughout the class, seek opportunities to draw attention to cultural elements of current events in healthcare.
 - 6. Consider using Father Michael Oleksa Series (especially disk 4) to emphasis these concepts

Medical/Legal

Alaska-specific Objectives

- 1.13 Explain Alaska-specific mandatory reporting requirements.
 - a. Child abuse
 - b. Elderly abuse
 - c. Reportable Injury
- 1.14 Discuss the importance of do not resuscitate (DNR) orders (advance directives) and provisions in the locality regarding EMS application (Comfort One program and POLST).
- 1.15 Discuss the Alaska Specific Scope of Practice

Lesson Content:

- A. Mandatory Reporting Requirements

1. Child Abuse and Neglect
 - a) AS 47.17.010 Child Protection & Required Reporting
 - b) Provide overview [AS 47.17.010](#) which defines the purpose of the regulation and provides a comprehensive definition list of child abuse and neglect acts, which are;
 - 1) Physical injury or neglect
 - 2) mental injury
 - 3) sexual abuse
 - 4) sexual exploitation
 - 5) maltreatment
 - c) AS 47.17.020 Persons required to report
 - 1) Defines EMT's as mandatory reporters
 - 2) Federal law [25 U.S.C. 3202](#), [18 U.S.C 1169](#) further defines mandatory reporters if you provide services to Tribes and Tribal organizations.
 - 3) Reporting Criteria
 - (a) Report to the Office of Children's Services (OCS)
 - (b) Reporting must happen "immediately" – no later than 24 hours
 - (c) By phone – (800) 478-4444
 - (d) By fax – (907) 269-3939
 - (e) By email – reportchildabuse@alaska.gov
 - 4) If sexual abuse is suspected reports must also be filed with local law enforcement
 - 5) Follow your organizations internal policies regarding documenting the abuse or neglect
 - (a) Keep written record of what happened for you to refer to in the event you are called upon to testify
 - 6) Mandatory Reporter Training
 - (a) Where to find mandatory training : DHSS.Alaska.gov/OCS
2. Vulnerable Adult Abuse & Neglect
 - a) AS 47.24.010 "Reports of Harm"
 - b) Provide an overview of the statute [AS 47.24.010 Link](#)
 - c) Reporting Criteria
 - 1) Suspicions of abandonment, exploitation, abuse, neglect, or self-neglect that have come to the EMT's attention
 - 2) Report must be submitted within 24-hours by either fax or on-line submission
 - 3) Fillable "Report of Harm for the Protection of Vulnerable Adults" form
 - (a) Fax to (907)269-3648
 - 4) Online filing
 - (a) <http://dhss.alaska.gov/dsds/Pages/CentralizedReporting.aspx>.
 - d) Mandatory Training
 - 1) Mandatory Reporter training must be accomplished
 - 2) http://dhss.alaska.gov/dsds/Pages/aps/mandated_reporters.aspx
3. Report of certain injuries
 - a) AS 08.64.369 "Health Care Professionals to Report Certain Injuries"
 - 1) Provide an overview of the statute [AS 08.64.369](#)

- 2) Burn reporting
 - (a) Burn reporting criteria
 - (b) Burn reporting process
 - (1) "State of Alaska Burn Injury Form" must be filed within 3 working days
 - (2) Provide an overview of the "State of Alaska Burn Injury Form" found at [Burn Injury Reports](https://dps.alaska.gov/fire/alaskafirestatistics)
<https://dps.alaska.gov/fire/alaskafirestatistics>
4. Death in the Field
 - a) Alaska DNR and Alaska DNR and POLST regulations: include link to this when complete.
 - 1) In Alaska, an EMT may honor an advanced directive for Do not Resuscitate:
 - (a) when it is in writing,
 - (b) has been seen by the provider,
 - (c) identifies the patient by name,
 - (d) is signed by a physician, and
 - (e) was issued in the US or territories,
 - (f) or a verbal order is issued directly by a physician (7 AAC 16.010).
 - 2) Only the physician, the patient, or legal guardian (not power of attorney) may withdraw a DNR order.
 - 3) Newer advanced directives such as POLST (Physician Order for Life Sustaining Treatment) or MOLST (Medical Order for Life Sustaining Treatment) may be honored according to the above or current state law. They usually specify what treatments are appropriate for the patient and may limit the care delivered. For example, an IV and pain medicine may be permitted but not artificial ventilation.
 - 4) An EMT is not permitted to follow an advanced directive that does not meet the above requirements.
 - b) Discuss AS 18.08.089. Authority to Pronounce Death.
 - 1) Pronouncing Death: AS 09.68.120. Definition of Death- review this statute and implications for the EMT-I

Lesson 2: PHARMACOLOGY – Medication Administration & Emergency Medications

National Education Standards:

Applies fundamental knowledge of the medications that the EMT may assist/administer to a patient during an emergency.

Alaska Specific Objectives

- 2.1 According to the criteria in the appropriate skill sheet in the Alaska Psychomotor Portfolio, demonstrate the administration of medication to a simulated patient via the following routes:
 - a. Intranasal (mucosal atomizer and prefilled cartridge device)
 - b. Oral mucosa: Sublingual, buccal
 - c. Intramuscular (auto-injector and needle/syringe)
 - d. Oral
 - e. Nebulized
 - f. Multi-Dose Inhaler (with and without spacer)
- 2.2 Demonstrate administration of medical director approved vaccinations.
- 2.3 Medications- Give the generic and trade names, actions, indications, contraindications, routes of administration, side effects, interactions, and doses of the following medications that an EMT may administer or assist in administering: (Note those listed are not included in the National Standard Curriculum)
 - a. Aspirin
 - b. Naloxone (opioid antagonist)
 - c. Unit dose auto-injectors (such as nerve agent antidote kits)
 - d. Inhaled bronchodilators (mdi and nebulizer)
 - e. Epinephrine 1 mg/ml concentration IM for anaphylaxis
 - f. Over the counter (OTC) analgesics
 - g. Medical director approved vaccinations
- 2.4 Using the Medical Direction Requirements listed in the Alaska Scope of Practice, differentiate between the three levels of authorization to administer medications, and give an example of a medication permissible under each level.

Psychomotor objectives:

- 2.5 Given a patient scenario, state and/ or demonstrate the correct drug, dosage, and administration route(s) for
 - a. Aspirin
 - b. Naloxone (opioid antagonist)
 - c. Unit dose auto-injectors (such as nerve agent antidote kits)
 - d. Inhaled bronchodilators (MDI and nebulizer)
 - e. Epinephrine 1 mg/ml concentration IM for anaphylaxis
 - f. Over the counter analgesics

Lesson Content

- A. Routes of Administration
 1. Alimentary Tract
 - a) Oral

- b) Sublingual
 - 2. Parenteral
 - a) Intramuscular
 - 1) Lateral Deltoid- easily accessible in many patients, low risk of complications
 - 2) Vastus Lateralis- easily accessible in many patients, significant blood flow due to large muscle group; low risk of complications
- B. Administration of Medication to a Patient
1. The “Rights” of Drug Administration
 - a) Right patient – prescribed to patient or indicated by standing orders
 - b) Right medication – patient condition and confirmed with double check
 - c) Right route – patient condition
 - d) Right dose – prescribed to patient
 - e) Right time – within expiration date
 2. Techniques of Medication Administration (Advantages, Disadvantages, Techniques explored in other content areas of this document)
 - a) Intramuscular (manual)
 - b) Aerosolized
 - c) Nebulized
 - d) Sublingual
 - e) Intranasal
- C. Reassessment and Documentation
1. Data – Indications for medication and route of administration
 2. Action – Medication and dose administered
- D. Response – Effect of medication and reassessment
- E. Sample drug information cards and other supporting materials are available in the Alaska EMS instructor reference repository.
- F. List the Medical Direction Requirements in the Alaska Scope of Practice and differentiate between the three levels of authorization
1. (X) No Medical Director Sponsorship or Control Required.
 2. (X) Medical Director Sponsorship-
 - a) A provider must be under the sponsorship of a medical director with standing orders that authorize the use of the skill or medication.
 3. (X*) Medical Control in absence of a Medical Director Sponsorship-
 - a) An EMT that is not under the sponsorship of a medical director may utilize this skill or medication, but must contact the Emergency Department for verbal authorization, time the order was given, and the order given.
- G. Examples of medication or skills administered or provided under each level:
1. (X) No Medical Director Sponsorship or Control Required.
 - a) Splinting
 - b) Oxygen
 - c) Opioid antagonist
 2. (X) Medical Director Sponsorship-
 - a) Medical Director approved vaccinations
 - b) Chemical Hazardous Materials auto-injector antidote
 - c) Epi 1/mg/1 ml IM
 3. (X*) Medical Control in absence of a Medical Director Sponsorship-
 - a) OTC medications
 - b) Bronchodilators other than the patient’s own medication
 - c) Nitroglycerin- Patient’s own medication

4. Refer to Alaska State Scope of Practice referenced in regulations for additional skills and medications under each of the categories.
 - a) Using the fillable document available in the instructor repository, have students indicate the medical direction requirements for each medication in the EMT-I scope of practice.
- H. Drug Profiles
 1. The student should develop a drug profile for the following medications allowed by the Alaska OEMS for administration by EMT-I's in Alaska. * are the medications **not** approved in the National EMT Instructional Guidelines:
 - a) Aspirin
 - b) Inhaled bronchodilators
 - c) Epinephrine Auto-injectors
 - d) *Epinephrine 1 mg/1ml for anaphylaxis
 - e) Oral Glucose
 - f) *Oral over the counter (OTC) analgesics for pain or fever
 - 1) Acetaminophen
 - 2) Ibuprofen
 - g) Sublingual nitroglycerine for chest pain (patient's own)
 - h) *Chemical Hazardous Materials auto-injector antidote

Lesson 3: Medicine

National Education Standards:

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

Abdominal and Gastrointestinal Disorders

Alaska Specific Objectives

- 3.1 Discuss the use of over-the-counter (OTC) medications for pain and fever in relation to gastrointestinal and urologic emergencies.

Lesson Content

- A. Although patients may experience severe pain with gastrointestinal and urologic emergencies, over-the-counter medications within the Alaska EMT-I's scope of practice should be administered with caution.
- B. Review the drug cards, specifically indications, contraindications, and side effects, for ibuprofen and acetaminophen.
- C. Discuss the implications of administration of these medications to a patient with
 1. Nausea (may precipitate vomiting)
 2. Liver damage or illness (acetaminophen may be harmful)
 3. Renal damage or illness (ibuprofen may be harmful)
- D. Refer to agency protocols or contact medical control if needed

Infectious Disease

Alaska Specific Objectives

- 3.2 Reviewing data from Alaska Epidemiology on Alaska Morbidity/Mortality, describe five of the most prevalent medical conditions leading to morbidity and mortality in Alaska, and management considerations for each.

Lesson Content:

- A. Discuss the five most prevalent causes of death in Alaska.
 - 1. Cancer
 - 2. Heart disease
 - 3. Chronic lower respiratory diseases
 - 4. Stroke
 - 5. Chronic liver disease
- B. Discuss treatment for these patients
 - 1. Supportive care
 - 2. Follow living will and advanced directives

Cardiovascular Emergencies

National Education Standards:

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient..

Alaska Specific Objectives

- 3.3 Demonstrate appropriate lead placement for 4, and 12-lead ECG acquisition

Lesson Content

- A. Lead Placement General Info
 - 1. Discuss proper placement of electrodes
 - 2. Discuss incorrect placement
 - a) Avoid placing monitoring electrodes over bone,
 - b) large muscle masses and excessive hair. If necessary, shave a small area for the electrode.
 - 3. If possible, clean each electrode area with alcohol or 4x4 to remove dirt and body oil, ensure area is dry
- B. Limb Lead placement:
 - 1. White (RA) electrode on the right arm.
 - 2. Black (LA) electrode on the left arm.
 - 3. Red (LL) electrode on the left leg.
 - 4. Green (RL) electrode on the right leg.
- C. Precordial leads placement:
 - 1. V1 Right side of the sternum in the fourth intercostal space
 - 2. V2: Left side of the sternum in the fourth intercostal space
 - 3. V3: Left side: Midway between V2 and V4.
 - 4. V4:Left side: Midclavicular line in the fifth intercostal space.
 - 5. V5: Left side: Anterior axillary line at the same level as V4
 - 6. V6: Midaxillary line at the same level as V4.
- D. Discuss acquiring and transmitting 12 leads

Toxicology

Alaska Specific Objectives

- 3.4 Describe the prevalence, morbidity and mortality, and management considerations for each of these toxicologic emergencies in Alaska:
- Botulism
 - PSP
 - Carbon Monoxide (CO) Poisoning

Alaska Specific Psychomotor Objectives

- 3.5 Demonstrate the use of naloxone intranasal
3.6 Demonstrate the use of chemical hazardous material auto-injector antidote kit

Lesson Content:

- A. Discuss the prevalence of Botulism in Alaska
- Botulism is a life threatening disease caused by toxins from improper food processing. Alaska has the highest rate of foodborne Botulism than any other state.
 - Signs and Symptoms of botulism include
 - Abdominal pain,
 - Diarrhea,
 - Intestinal,
 - ileus,
 - Nausea,
 - Urinary retention,
 - Vomiting,
 - Blurry vision,
 - Decreased gag reflex,
 - Dilated or unreactive pupils,
 - Diplopia,
 - Dry mouth,
 - Dysphagia,
 - Dyspnea, (without typical signs, such as gasping)
 - Fatigue,
 - Respiratory muscle paralysis,
 - Symmetrical skeletal muscle weakness.
 - EMS Care is generally supportive care
- B. Discuss paralytic shellfish poisoning
- PSP is caused by eating shellfish that have been consuming microscopic, single-celled dinoflagellate algae that produce highly poisonous toxins.
 - Signs and symptoms of PSP
 - tingling of the lips and tongue. This may progress to the arms and legs and eventually loss of muscle control.
 - Paralysis of the chest and abdominal muscles may occur causing difficulty breathing.
 - High exposure to the toxins may cause death.
 - EMS care is airway management and supportive care.
- C. Discuss the prevalence of CO Poisoning in Alaska
- Alaska has the second highest death rate from CO poisoning in the nation.
 - Carbon Monoxide is a colorless and odorless gas that is a byproduct of combustion.
 - Signs and symptoms of mild to moderate CO poisoning are:
 - headache,

- b) Fatigue,
 - c) shortness of breath,
 - d) nausea,
 - e) dizziness.
3. Signs and symptoms of severe CO poisoning are
- a) mental confusion,
 - b) vomiting,
 - c) loss of muscular coordination,
 - d) loss of consciousness,
 - e) and death.
4. Discuss treatment of the CO patient
- a) Remove patient from environment
 - b) Administer high concentration oxygen

Lesson 4: Shock and Resuscitation

Alaska Specific Objectives

- 4.1 Discuss trauma death in the field and how it relates to the following Alaska specific laws:
- a. 7 AAC 16.010-090 DNR and Alaska Comfort One
 - b. AS 18.08.089 – Authority to Pronounce death
 - c. AS 09.68.120 Definition of Death
- 4.2 State the responsibilities of an EMT to determine whether a patient who has died is an organ donor (AS13.50.016)

Lesson Content

- A. Trauma deaths in the field
1. Pathophysiology of out of hospital cardiac arrest (OHCA) is very different from OHCA in non-trauma patients.
 2. Whether the arrest is due to a direct result of the injury such as blunt or penetrating trauma to the chest or due to other mechanisms such as hemorrhagic shock, outcomes are inferior with survival rates of less than 2%. For this reason, the NAEMSP (National Association of EMS Physicians), in conjunction with the American College of Surgeons Committee on Trauma (ACSCOT), released guidelines on withholding resuscitation in trauma patients in 2003 and updated in 2012.
 - a) Where death is a predictable outcome
 - b) Where injuries are incompatible with life, such as decapitation or hemicorporectomy
 - c) For patients with blunt or penetrating trauma where there is evidence of prolonged cardiac arrest, including dependent lividity and rigor mortis
 - d) For patients with blunt trauma who, on the arrival of EMS personnel, is found to be apneic, pulseless, and without organized cardiac activity
 - e) For patients with penetrating trauma who, on the arrival of EMS personnel, is found to be pulseless and apneic and there are no other signs of life, including spontaneous movement, electrocardiographic activity, and pupillary response
 3. Alaska's guidelines for termination of resuscitation comes from the definitions found in AS 18.08.089 Authority to Pronounce Death and includes
 - a) the presence of injuries incompatible with life, including incineration, decapitation, open head injury with loss of brain matter, or detrunctation;
 - b) the presence of rigor mortis;
 - c) the presence of post mortem lividity; or

- d) failure of the patient to respond to properly administered resuscitation efforts;
 - 1) "failure of the patient to respond" means without restoration of spontaneous pulse or respiratory effort by the patient;
 - 2) "properly administered resuscitation efforts" means
 - (a) when a person authorized to perform advanced cardiac life support techniques is not available and the patient is not hypothermic, at least 30 minutes of properly performed cardiopulmonary resuscitation;
 - (b) when a person authorized to perform advanced cardiac life support techniques is not available and the patient is hypothermic, at least 60 minutes of cardiopulmonary resuscitation properly performed in conjunction with rewarming techniques as described in the current State of Alaska Hypothermia and Cold Water Near-Drowning Guidelines published by the division of public health, Department of Health and Social Services; or
 - (c) at least 30 minutes of cardiopulmonary resuscitation and advanced cardiac life support techniques properly performed by a person authorized to perform advanced life support services.
- 4. Area Protocols may be different, be sure to follow local protocols.
- B. Organ Donation in Alaska
 - 1. Organs which can be recovered for lifesaving transplants include: heart, liver, pancreas, lungs, kidneys and intestines. Examples of tissues that could enhance or save someone's life include: corneas, cardiovascular tissues, bones and skin grafts
 - 2. AS 13.52.213 Search and Notification requires that a law enforcement officer, a firefighter, a paramedic, or other emergency rescuer, who believes a patient is dead or near death, make a reasonable search for documentation of gift or other information identifying the individual as a donor or as an individual who made a refusal
 - 3. Once identified, they should send the documentation to the hospital with the patient.

Lesson 5: Trauma

National Education Standards:

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely injured patient

Alaska Specific Objectives

- 5.1 Discuss ways that weather and terrain can adversely affect patient care and transport, either statewide or within the local response area.
- 5.2 Discuss indications and mechanisms for calling a Trauma Alert in Alaska.
- 5.3 Discuss resources for providing patient care when transport is delayed.

Lesson Content

- A. Discuss the challenges in Alaska for treating patients:
 1. Delayed transports
 2. Extreme weather conditions
 3. Terrain
 4. Transportation anomalies
- B. Discuss local protocols for calling a Trauma Alert
- C. Blunt Trauma Arrest
 1. Consider terminating resuscitation in the following situations:
 - a) EMS-witnessed cardiopulmonary arrest and 30 minutes of resuscitation efforts with no signs of life or response to BLS care (chest compressions & BVM ventilations).
 - b) Or, per local protocols

Environmental Emergencies

Alaska Specific Objectives

- 5.4 Discuss hypothermia and cold injuries
- 5.5 Demonstrate how to care for a patient with hypothermia in the field according to the Alaska Cold Injuries Guidelines.
- 5.6 Demonstrate how to care for a patient with frostbite in the field according to the Alaska Cold Injuries Guidelines.
- 5.7 Describe the steps for stabilizing a patient with a suspected spinal injury in the water, according to the Alaska Cold Injuries Guidelines.
- 5.8 Discuss the recovery, assessment, and management of a patient who has been involved in a cold-water drowning incident, according to the Alaska Cold Injuries Guidelines.
- 5.9 Discuss care for an apneic, pulseless hypothermic patient, according to the Alaska Cold Injuries Guidelines.
- 5.10 Discuss the types of dysbarism injuries that may be caused by high altitudes according to the Alaska Cold Injuries Guidelines, including their signs and symptoms and emergency medical treatment in the field.

Lesson Content

- A. Discuss hypothermia- Use the Alaska Cold Injuries Guidelines to go into detail on:
 1. General Points
 2. Classifications of Level of Hypothermia
 3. Core Temperature Measurement
 4. Handling Hypothermic Patients

5. Treatment for a cold but not hypothermic (mild hypothermia)
 6. Treatment for moderate to severe hypothermia
 7. Alaska State Guidelines for pronouncing death in the setting of hypothermia
 8. Transport of hypothermia patients
 9. Rewarming methods
- B. Cold water near drowning- Use the Alaska Cold Injuries Guidelines to go into detail on:
1. General Points
 2. Physiology of Drowning
 3. Surviving cold water immersion
 4. Drowning rescue
 5. BLS for drowning victims
 6. ALS for drowning victims
 7. Termination of resuscitation in drowning
- C. Frostbite-Use the Alaska Cold Injuries Guidelines to go into detail on:
1. General Points
 2. Degree of frostbite
 3. Treatment and care for all levels of frostbite
 4. What you should not do when treating and caring for frostbites
 5. Care and transport by ground or air
 6. Post-thawing wound care
- D. Avalanche rescue
1. General Points
 2. Avalanche victims survivability based on time and depth
 3. Evaluation and treatment of avalanche victims

Lesson 6: Pediatric Emergencies

Alaska Specific Objectives

- 6.1 Discuss the Pediatric emergency hotline number and identify when and how to call
- 6.2 Discuss the role of the Pediatric Emergency Care Coordinator (PECC) in facilitating an EMS agency's care of children.
- 6.3 Discuss incidence of CPT1a arctic variant in Alaska, and its relevance to the Alaska EMT.
- 6.4 Discuss the role of the Alaska Perinatal Transport Initiative in improving care of pregnant women and newborns.

Lesson Content

- A. Discuss Alaska Emergency Medical Services for Children
1. Alaska Pediatric Medical Consultation Hotline Numbers
 - a) Phone lines
 - 1) (907) 297-8809 – Alaska Native Medical Center
 - 2) (907) 212-3133 – Providence Alaska Medical Center
 - b) Purpose
 - 1) To offer emergency care providers a pediatric specific medical consultation to discuss treatment and transfer options for pediatric patient.
 - 2) Always review your agencies standing orders, refer to your policies and procedures, and consult your medical director.
 2. Pediatric Emergency Care Coordinator (PECC)
 - a) Each ambulance service is required to have a PECC whose role is to act as a champion for pediatric emergency care for their service.

- b) Organizations with a PECC experience better outcomes in the pediatric populations as compared to organizations that do not have a designated PECC
 - c) EMSC [Website](#)
- B. CPT1A Arctic Variant (CPT1A)
 - 1. What is it?
 - a) Common in Yupik and Inupiaq populations
 - b) Genetic adaptation to a specific nutritional environment which can cause problems breaking down fat into energy for the body.
 - c) Part of universal newborn screening in Alaska- parents may know if their child has arctic variant.
 - d) Signs and Symptoms
 - 1) Most infants and children with CPT1A never have symptoms
 - 2) Symptoms may arise if the child becomes ill, or goes too long without eating or drinking enough
 - 3) Symptoms include:
 - 4) Extreme sleepiness
 - 5) Irritable mood
 - 6) Poor appetite
 - 7) Low blood sugar (hypoglycemia) (Jitteriness in infants)
 - 8) Seizures
 - 9) Coma, sometimes leading to death
 - 2. For additional information: ANTHC's Living With the Arctic Variant <https://youtu.be/gE8CnQjZDak>
- C. Perinatal Transport Initiative: What is it?
- D. EMS for Children and the Alaska Perinatal Quality Collaborative are working to gather information and provide resources for emergency perinatal transports.
 - 1. Alaska has one of the highest community (non-hospital) birth rates, at ~ 6-7%, and the Alaska EMT has a commensurately higher likelihood of caring for a laboring woman or a newborn in the immediate postpartum period.
 - 2. For more information or local initiatives, visit <https://www.ashnha.com/akpqc-birth-transfer-initiative/>

Lesson 7: Geriatric Emergencies

Alaska Specific Objectives

- 7.1 List the suspicions of abuse and neglect of elders, and disabled adults.
- 7.2 Describe which must be reported and to whom.
- 7.3 Describe the process for making the report, and the alternatives if immediate assistance is required to prevent injuries or further harm

Lesson Content

- A. Assess patients for any psychological characteristics of abuse, including:
 - 1. excessive passivity,
 - 2. Complaint or fearful behavior,
 - 3. excessive aggression,
 - 4. violent tendencies,
 - 5. excessive crying,
 - 6. behavioral disorders,
 - 7. substance abuse,
 - 8. medical non-compliance,
 - 9. or repeated EMS requests.

- B. Assess the patient for any physical signs of abuse, especially any injuries that are inconsistent with the reported mechanism of injury.
 - 1. Perform a head to toe assessment
 - 2. Scalp are common sites for abusive injuries.
 - 3. Defensive injuries (e.g. to forearms), and injuries during pregnancy are also suggestive of abuse.
 - 4. Injuries in different stages of healing may indicate repeated episodes of violence.
 - 5. Assess all patients for signs and symptoms of neglect
 - a) inappropriate level of clothing for weather,
 - b) inadequate hygiene,
 - c) absence of attentive caregivers,
 - d) or physical signs of malnutrition.
 - 6. Assess all patients for signs of sexual abuse,
 - a) torn, stained, or bloody underclothing,
 - b) unexplained injuries,
 - c) pregnancy,
 - d) or sexually transmitted diseases.
- C. Immediately report any suspicious findings to
 - 1. law enforcement
 - 2. the receiving hospital (if transported).
 - 3. If an elder or disabled adult is involved, also contact the Department of Social Services (DSS) 1-800-478-9996 (in state only) or 907-269-3666 (M-F 8-5 only).
 - 4. EMS personnel should attempt in private to provide the patient with the phone number of the local domestic violence program, or the National Hotline, 1-800-799-SAFE (7233) (TTY 1-800-787-3224)
 - 5. Alaska contact number is (907) 586-3650 Emergency Medical Services for Children

Lesson 8: EMS Operations

Alaska Specific Objectives

- 8.1 Demonstrate the state EMS patient care reporting system -AURORA

Lesson Content

- A. Review relevant information in State of Alaska Guidelines listed in the objectives
- B. Provide an opportunity to practice integrating this information within patient care and transport simulations.