Assessment

EMR

Use scene information and simple patient assessment findings to identify and manage immediate life threats and injuries within the scope of practice of the EMR.

EMT

Applies scene information and patient assessment findings (scene size up, primary and secondary assessment, patient history, and reassessment) to guide emergency management.

AEMT

Same as Previous Level

PARAMEDIC

Integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

Scene Size-Up

EMR

Complex depth, comprehensive breadth

- Scene safety

Fundamental depth, foundational breadth

- Scene management
  - Impact of the environment on patient care
  - Addressing hazards
  - Violence
  - Need for additional or specialized resources
  - Standard precautions

- Scene Safety
  - Common Scene Hazards
    - Environmental
    - Hazardous substances
    - Violence
    - Rescue
  - Evaluation of the Scene
- Scene Management
  - Impact of the Environment on Patient Care
    - Medical
    - Trauma
    - Environmental considerations
  - Addressing Hazards
    - Protect the patient
    - Protect the bystanders
    - Request resources
    - Scan the scene for information related to
  - Violence

        - EMRs should not enter a scene or approach a patient if the threat of violence exits
        - Park away from the scene and wait for the appropriate law enforcement officials to minimize the danger
    - Need for Additional or Specialized Resources
        - A variety of specialized protective equipment and gear is available for specialized situations
        - Only specially trained responders should wear or use the specialized equipment
    - Standard Precautions
        - Overview
        - Implementation
        - Personal protective equipment

EMT: EMR Material PLUS:

Fundamental depth, foundational breadth

- Scene management
- Multiple patient situations

The EMT Instructional Guidelines in this section include all the topics and material at the EMR level PLUS the following material:

- Scene Safety
    - Common Scene Hazards
        - Environmental
        - Hazardous substances
        - Violence
        - Rescue
    - Evaluation of the Scene -- is the scene safe?
- Scene Management
    - Impact of the Environment on Patient Care
        - Medical
        - Trauma
        - Environmental considerations
    - Addressing Hazards
        - Protect the patient
        - Protect the bystanders
        - Request resources
        - Scan the scene for information related to
    - Violence
        - EMTs should not enter a scene or approach a patient if the threat of violence exits
        - Park away from the scene and wait for the appropriate law enforcement officials to minimize the danger
    - Need for Additional or Specialized Resources

        - A variety of specialized protective equipment and gear is available for specialized situations
        - Only specially trained responders should wear or use the specialized equipment
    - Standard Precautions
        - Overview
        - Implementation
        - Personal Protective Equipment
    - Multiple-Patient Situations
        - Number of patients and need for additional support
        - Need for additional resources

AEMT: Same as Previous Level

Paramedic: AEMT Material PLUS:

Complex depth, comprehensive breadth

- Scene management
- Impact of the environment on patient care
- Addressing hazards
- Violence
- Multiple patient situations

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- Scene Safety
    - Common scene hazards
        - Environmental
        - Hazardous substances
        - Violence
        - Rescue
    - Evaluation of the scene
- Scene management
    - Impact of the environment on patient care
        - Medical
        - Trauma
        - Environmental considerations
    - Addressing hazards
        - Protect the patient
        - Protect the bystanders
        - Request resources
        - Scan the scene for information related to
    - Violence
        - Paramedics should not enter a scene or approach a patient if the threat of violence exits.

        - Park away from the scene and wait for the appropriate law enforcement officials to minimize the danger
    - Need for additional or specialized resources
        - A variety of specialized protective equipment and gear is available for specialized situations.
        - Only specially trained responders should wear or use the specialized equipment.
    - Standard precautions
        - Overview
        - Implementation
        - Personal Protective Equipment
    - Multiple patient situations
        - Number of patients and need for additional support
        - Need for additional resources

Primary Assessment

EMR

Simple depth, simple breadth

- Primary Survey/Primary Assessment
    - The Primary Survey Quickly Attempts to Identify Those Conditions That Represent an Immediate Threat to the Patient's Life
    - Level of Consciousness
        - While approaching the patient or immediately upon patient contact, attempt to establish level of consciousness
        - Patient response
    - Airway Status (refer to the current American Heart Association Guidelines)
        - Unresponsive medical patient open and maintain the airway with head-tilt, chin-lift technique
        - Unresponsive trauma patient open and maintain the airway with modified jaw thrust technique while maintaining manual cervical stabilization
        - Responsive patient
    - Breathing Status
        - Normal adult breathing
        - Abnormal adult breathing
    - Circulatory Status
        - Is a radial pulse present?
        - Is any major bleeding present?
        - Is the patient maintaining adequate blood flow?
        - Treat for shock in primary survey if:
            - Unresponsive to verbal
            - Heart rate too fast or too slow
            - Skin signs of shock are present
        - Management of shock
    - Identifying Life Threats

        - Assess patient and determine if the patient has a life-threatening condition
    - Assessment of Vital Functions
- Begin Interventions Needed to Preserve Life

EMT: EMR Material PLUS:
Fundamental depth, simple breadth

The EMT Instructional Guidelines in this section include all the topics and material at the EMR level PLUS the following material:

- Primary Survey/Primary Assessment
    - Initial General Impression – Based on the Patient's Age-Appropriate Appearance
        - Appears stable
        - Appears stable but potentially unstable
        - Appears unstable
    - Level of Consciousness
        - While approaching the patient or immediately upon patient contact attempt to establish level of consciousness
        - Patient response
    - Airway Status
        - Unresponsive patient
        - Responsive patient
    - Breathing Status
        - Patient responsive
        - Patient unresponsive
    - Circulatory Status
        - Radial pulse present (rate and quality)
        - Radial pulse absent
        - Assess if major bleeding is present
        - Perfusion status
    - Identifying Life Threats
        - Assess patient and determine if the patient has a life-threatening condition
    - Assessment of Vital Functions
- Integration of Treatment/Procedures Needed to Preserve Life
- Evaluating Priority of Patient Care and Transport
    - Primary Assessment: Stable
    - Primary Assessment: Potentially Unstable
    - Primary Assessment: Unstable

AEMT: EMT Material PLUS:
Fundamental depth, foundational breadth

The AEMT Instructional Guidelines in this section include all the topics and material at the EMT level PLUS the following material:

- Primary Survey/Primary Assessment
    - Initial General Impression - Based on The Patient's Age-Appropriate Appearance
        - Appears stable
        - Appears stable but potentially unstable
        - Appears unstable
    - Level of Consciousness
        - Alert
        - Responds to verbal stimuli.
        - Responds to painful stimuli.
        - Unresponsive - no gag or cough
    - Airway Status
        - Unresponsive patient
        - Responsive patient - Is the patient talking or crying?
    - Breathing Status
        - Patient responsive
        - Patient unresponsive
    - Circulatory Status
        - Radial pulse present (rate and quality)
        - Radial pulse absent
        - Assess if major bleeding is present
        - Perfusion status
    - Identify Life Threats
    - Assessment of Vital Functions
- Integration of Treatment/Procedures Needed to Preserve Life
- Evaluating Priority of Patient Care and Transport
    - Primary Assessment: Stable
    - Primary Assessment: Potentially Unstable
    - Primary Assessment: Unstable

Paramedic: AEMT Material PLUS:
Complex depth, comprehensive breadth

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- Primary Survey/Primary Assessment
    - Initial General Impression - based on the patient's age appropriate appearance
        - Appears stable
        - Appears stable but potentially unstable
        - Appears unstable
    - Level of Consciousness
        - Alert
        - Responds to verbal stimuli
        - Responds to painful stimuli
        - Unresponsive - no gag or cough
    - Airway status

        - Unresponsive patient
        - Responsive patient - Is the patient talking or crying?
    - Breathing status
        - Patient responsive
        - Patient unresponsive
    - Circulatory status
        - Radial pulse present (rate and quality)
        - Radial pulse absent -- assess carotid pulse
        - Assess if major bleeding is present
        - Perfusion status
    - Disability - Brief neurological evaluation
    - Exposure - Patient completely undressed
    - Identifying life threats
    - Assessment of vital functions
- Integration of treatment/procedures needed to preserve life
- Evaluating priority of patient care and transport
    - Primary assessment: stable
    - Primary assessment: potentially unstable
    - Primary assessment: unstable

History Taking

EMR

Simple depth, simple breadth

- Determining the Chief Complaint
    - The Chief Complaint Is a Very Brief Description of the Reason for Summoning EMS to the Scene
        - In the best of circumstances, the patient will be able to answer all questions about his or her own chief complaint and medical history
        - In other cases, this information may be obtained from
- Mechanism of Injury or Nature of Illness
    - Mechanism of Injury
        - Forces that caused an injury
        - May help predict presence of injuries
    - Nature of Illness
        - Ask patient, family, or bystanders why EMS was called
        - Look for clues in environment
- Associated Signs and Symptoms
    - Ask the Patient to Describe the Current Problem
        - Sign – any medical or trauma assessment finding that can be seen, felt, or heard by the EMR
        - Symptom – any medical or trauma condition that is described to the EMR by the patient
    - Events Leading to the Illness or Injury
- Age-Related Variations for Pediatric and Geriatric Assessment and Management
    - Pediatric

        - Assess infant pulse at brachial artery
        - Capillary refill is a reliable assessment of adequate blood flow in infants and children six and younger
        - Use distracting measures to gain trust
        - See Special Patient Population section (Pediatrics)
    - Geriatric
        - Obtain eye glasses and hearing aids
        - Expect history to take more time
        - See Special Patient Population section (Geriatrics)

EMT: EMR Material PLUS:
Fundamental depth, foundational breadth

The EMT Instructional Guidelines in this section include all the topics and material at the EMR level PLUS the following material:

- Investigation of the Chief Complaint
    - The Chief Complaint Is a Very Brief Description of the Reason for Summoning EMS to the Scene
    - Factors Influencing the Data Collection
        - What is the source of the information?
        - How reliable is the data?
    - History of the Present Illness
        - Detailed evaluation of the chief complaint
        - Provides a full, clear, chronological account of the signs and symptoms
- Components of a Patient History
    - Statistical and Demographic
        - Obtain correct dates
        - Accurately document all times
        - Identifying data
    - Past Medical History (Pertinent to the Medical Event)
        - Medical
        - Trauma
        - Surgical
        - Consider medical identification tag
    - Current Health Status (Pertinent to the Medical Event)
        - Focuses on present state of health
        - Environmental conditions
        - Individual factors
- Techniques of History Taking
    - Setting the Stage
        - Environment – personal space
        - EMS personnel demeanor and appearance
        - Note-taking
    - Learning About the Present Illness
    - Determine Chief Complaint

        - Use a general, open-ended question
        - Follow the patient's lead
    - History of the Present Illness
        - Location (where is it?)
        - Onset (when did it start?)
        - Provocative, palliative, and positioning
        - Quality (what is it like?)
        - Radiation (does it move anywhere?)
        - Severity
        - Time
        - Associated signs and symptoms
        - Pertinent negative(s)
        - For trauma patients, determine the mechanism of injury
    - Assess Past Medical History (Pertinent to the Medical Event)
        - Pre-existing medical conditions or surgeries
        - Medications
        - Allergies
        - Family history
        - Social history; travel history
    - Current Health Status
        - Tobacco use
        - Use of alcohol, drugs, and other related substances
        - Diet
- Standardized Approach to History-Taking
    - SAMPLE History
        - S = Signs and symptoms
        - A = Allergies
        - M = Medications
        - P = Past pertinent medical history – relevant information concerning the illness or injury
        - L = Last oral intake
        - E = Events leading to the illness or injury
    - OPQRST History
        - O = Onset – time the signs or symptoms started
        - P = Provocative, palliative, and positioning
        - Q = Quality of the discomfort
        - R = Radiation
        - S = Severity
        - T = Time
- Taking History on Sensitive Topics
    - Alcohol and Drugs
    - Physical Abuse or Violence
    - Sexual History
    - Special Challenges
        - Silent patient
        - Overly talkative patients

            - Patient with multiple symptoms
            - Anxious patient
            - Angry and hostile patient
            - Intoxicated patient
            - Crying patient may provide valuable insight
            - Depressed patient
            - Patient with confusing behavior or history
            - Patient with limited cognitive abilities
            - EMT-patient language barrier – take every possible step to find a translator
            - Patient with hearing problem – if the patient can write, have the patient write down questions and answers on paper
            - Patient with visual impairment – be careful to announce presence and provide careful explanations
            - Talking with family and friends
- Age-Related Variations for Pediatric and Geriatric Assessment and Management
    - Pediatric (see Special Patient Population section)
    - Geriatric (see Special Patient Population section)
        - Obtain eye glasses and hearing aids
        - Expect history to take more time

AEMT: Same as Previous Level

Paramedic: AEMT Material PLUS:
Complex depth, comprehensive breadth

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- Components of the patient history
    - Overview
        - Purpose
        - Communicating with the patient
- Interviewing Techniques
    - Setting the stage
        - The environment
        - Your demeanor and appearance
        - Note taking
    - Learning about the present illness
        - Greeting the patient
        - The patient's comfort
        - Opening questions
        - Getting more information
    - Direct questions
        - To gather additional information, direct questions may be required
        - Should not be leading questions

        - Ask one question at a time
        - Use language that is (age) appropriate
    - Taking a history on sensitive topics
        - Alcohol and drugs
        - Physical abuse or violence
        - Sexual history
    - Taking a history in the trauma patient
        - Focuses on general underlying health
        - Special attention on
- Components of the patient history
    - Chief complaint
        - Brief statement of why the patient is seeking healthcare
        - Should include what is wrong and why treatment is sought
    - Present problem
        - Provides a full, clear, chronological account of the symptoms
        - State of health just prior to first onset of symptoms
    - Past medical history
        - General state of health
        - Childhood illnesses
        - Adult illnesses
        - Accidents and injuries
        - Past surgery
        - Hospitalization
        - Physical disability due to previous illness or injury
        - Emotional status
    - Family history or blood relatives with
        - Similar symptoms
        - Risk factor assessment of family diseases
    - Personal social history as it relates to illness risk factors
        - Smoking, drinking, drug use
        - Diet
        - Sexual habits
        - Occupation
        - Environment
        - Travel
    - Review of body systems
        - Questions should be selected based on patient's chief complaint and present problem.
        - General symptoms
        - Skin, hair and nails
        - Musculoskeletal
        - Head and neck
    - Clinical reasoning
        - Requires use of knowledge of anatomy, physiology and pathophysiology to direct the questioning

        - Start with broad possibility of systems that could contribute to patient's complaint
        - Narrow possible systems involved
    - Concluding questions
        - Wrapping up the history
        - Assuring that all the patients issues have been addressed
- Cultural Competence
    - Definition of culture
    - Developing cultural sensitivity
    - Impact of culture
        - Ethnic culture
        - Drugs
        - Poverty
        - Age
    - Definitions in cultural discussion
    - Questions specific to cultural impact
        - What do you think caused your problem
        - Why do you think it started when it did
    - Cultural Orientations
    - Cultural impact on disease
    - Religious beliefs that impact patient care
    - Cultural characteristics related to health care
    - Dietary practices
    - Family relationships
- Special challenges
    - Silence
        - Silence is often uncomfortable
        - Silence has meaning and many uses
        - Silence may be a result of the interviewer's lack of sensitivity
    - Overly talkative patients
        - Faced with a limited amount of time interviewers may become impatient
        - Although there are no perfect solutions, several techniques may be helpful
    - Patients with multiple symptoms
    - Anxious patients
        - Anxiety is natural
        - Be sensitive to nonverbal clues
    - Reassurance
        - It is tempting to be overly reassuring
        - Premature reassurance blocks communication
    - Anger and hostility
        - Understand that anger and hostility are natural
        - Do not get angry in return
    - Intoxication
        - Be accepting not challenging
        - Do not attempt to have the patient lower their voice or stop cursing; this may aggravate them

- Crying
  - Crying, like anger and hostility may provide valuable insight
  - Be sympathetic
- Depression
- Confusing behaviors or histories
  - Be prepared for the confusion and frustration of varying behaviors and histories
  - Be alert for mental illness, delirium or dementia
- Limited intelligence
  - Do not overlook the ability of these patients to provide you with adequate information
  - Be alert for omissions
- Language barriers
  - Take every possible step to find a translator
  - A few broken words are not an acceptable substitute
- Hearing problems
  - Very similar to patients with a language barrier
  - If the patient can sign, make every effort to find a translator
- Blind patients
  - Be careful to announce yourself and to explain who you are and why you are there
- Talking with family and friends
  - Some patients may not be able to provide you with all information
  - Try to find a third party who can help you get the whole story

- Integration of therapeutic communication, history taking techniques, patient presentation and assessment findings -- Development of field impression
- Treatment Plan -- Modify initial treatment plan
- Age-related considerations
  - Pediatrics
    - History may be taken from parent or responsible adult
    - Present problem or illness
    - Past medical history
  - Geriatrics
    - Sensory issues (hearing and vision) may require paramedic to interview at eye level so patient can read lips
    - The interview may need to be slowed down if the patient is stable
    - Multiple underlying chronic illnesses may confound the history
    - Disease symptoms may be less dramatic in the older patient
    - All symptoms may be vague and non-specific
    - Multiple pharmaceutical therapies may lead to:
      - Iatrogenic illnesses
      - Accidental overdose or adverse drug interaction
    - Consider inclusion of a functional assessment during the systems review in the elderly patient with apparent disability
  - Functional Assessment:
    - Mobility

        - Upper extremity function
        - Instrumental activities of daily living (IADL)
        - Activities of daily living

Secondary Assessment

EMR

Simple depth, simple breadth

- Performing a Rapid Full-Body Scan
    - General Approach to the Secondary Assessment
        - Examine the patient systematically
        - Place special emphasis on areas suggested by the chief complaint
        - Many patients view a physical exam with apprehension and anxiety—they feel vulnerable and exposed
- Focused Assessment of Pain
    - The EMR Should Complete a Secondary Assessment on All Patients Following the Primary Assessment
    - Exam May Focus on Specific Area Based on Patient Complaint (i.e. injury or illness)
    - As the EMR Discovers Specific Signs and Symptoms, There May Be Specific Relevant Questions That the EMR Should Ask. This Material Is Described in Specific Lessons in the Medical and Trauma Sections
    - Perform a Physical Examination to Gather Additional Information
        - Compare one side of the body to the other
        - Inspect (look) and palpate (feel) for the following signs of injury
        - Briefly assess the body from head to toe
        - Immediately treat life-threatening problems found in secondary survey
- Assessment of Vital Signs
    - Obtain a Complete Set of Vital Signs After Managing Life-Threatening Problems Found in Primary Survey
    - Vital Signs Provide a Starting Point for Judging the Effectiveness of Prehospital Therapy.
        - Respiratory rate
        - Pulse
        - Blood pressure
- Special Considerations for Pediatric and Geriatric Patients
    - Normal Vital Signs by Age
    - See Special Patient Populations Section

EMT: EMR Material PLUS:

Fundamental depth, foundational breadth

Techniques of physical examination

The EMT Instructional Guidelines in this section include all the topics and material at the EMR level PLUS the following material:

- Techniques of Physical Examination
    - General Approach
        - Examine the patient systematically
        - Place special emphasis on areas suggested by the present illness and chief complaint
        - Keep in mind that most patients view a physical exam with apprehension and anxiety—they feel vulnerable and exposed
        - Maintain professionalism throughout the physical exam while displaying compassion towards your patient
    - Respiratory System
        - Expose the chest as appropriate for the environment
        - Chest shape and symmetry
        - Respiratory effort
        - Auscultation
    - Cardiovascular System
        - Pulse
        - Perfusion
    - Neurological System
        - Mental status
    - Musculoskeletal System
        - Pelvic region
        - Lower extremities
        - Upper extremities
        - Back
    - All Anatomical Regions
        - Head
        - Neck
        - Chest
        - Abdomen
- Special Considerations for Pediatric and Geriatric Patients (see Special Patient Populations section)

AEMT: EMT Material PLUS:

Complex depth, foundational breadth
Assessment of lung sounds

The AEMT Instructional Guidelines in this section include all the topics and material at the EMT level PLUS the following material:

- Assessment of Lung Sounds
    - Expose the Chest as Appropriate for the Environment
    - Auscultation
        - Technique
        - Lung sounds
        - Inspiratory versus expiratory phase
- Special Considerations for Pediatric and Geriatric Patients

- Normal Vital Signs by Age
- See Special Patient Populations section

Paramedic: AEMT Material PLUS:

Complex depth, comprehensive breadth
Techniques of physical examination for all major body systems and anatomical regions

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- Techniques of Physical Examination
  - Major Body Systems
  - Major Anatomical Regions
- Physical examination techniques will vary from patient to patient depending on the chief complaint, present illness, and history
  - The appropriate assessment of the patient depends on
    - the stability of the patient
    - the complaint
    - the history
    - ability to communicate
    - the potential for unrecognized illness
  - Not all aspects of the physical assessment that the provider should be familiar with will be used on all patients
- Physical examination – approach and overview
  - Examination techniques
    - Examination techniques
    - Measurement of vital signs
    - Height and weight estimation
  - General Approach
    - Examine the patient systematically
    - Examine the patient in the most appropriate environment available
    - Place special emphasis on areas suggested by the present illness and chief complaint
    - Keep in mind that most patients view a physical exam with apprehension and anxiety – they feel vulnerable and exposed
    - Maintain professionalism throughout the physical exam while displaying compassion towards your patient
  - Overview of a comprehensive examination
    - The categories of a physical exam includes
      - Mental status
      - General survey
      - Vital signs
- Mental Status
  - Appearance and behavior
    - Assess for level of consciousness
    - Measurement tools for assessment of mental status

        - Observe posture and motor behavior
        - Dress, grooming, and personal hygiene
        - Facial Expression
        - Manner, affect, and relation to person and things
    - Speech and language
    - Mood
    - Thought and perceptions
        - Assess thought processes
        - Assess thought content
        - Assess perceptions
    - Assess insight and judgment
        - Insight into illness
        - Level of judgment in making decisions or plans
        - Possible findings
    - Memory and attention
        - Assess orientation
        - Assess attention
        - Assess remote memory (i.e., birthdays)
        - Assess recent memory (i.e., events of the day)
        - Assess new learning ability (recall of your name)
- Techniques of Physical Exam: General Survey
    - Introduction
        - Wide range of “normal”
        - Repetitive examination of multiple patients needed to establish one’s own baseline knowledge
    - Physical findings in relation to development
        - Age
        - Sexual development
        - Weight
        - Height
    - Body Structure
        - Symmetry
        - Body build
        - Physical fitness
        - Posture
    - Level of consciousness
        - AVPU
        - Level of orientation
    - Skin signs
        - Color
        - Temperature
        - Condition
        - Texture
        - Hydration
    - Age variation
        - Pediatric variation

        - Geriatric variation
- Vital Signs
    - Introduction
        - Vital Signs as baseline measurement of function
        - Position patient in normal position for accurate readings
    - Respiration
        - Respiratory rate
        - Respiratory depth
        - Respiratory effort
    - Circulation
        - Pulse rate
        - Pulse rhythm
        - Pulse strength
        - Pulse location
    - Perfusion
        - Blood pressure
        - Methods of measurement
        - Oxygen saturation
        - Capnograpy
        - Capillary refill
        - Oral mucosal color
- Examination by anatomical region or system
    - Skin, hair and nails
        - Review of anatomy and physiology
        - Review of related history
        - Relevant past medical history
        - Relevant family history
        - Relevant personal and social history
        - Age-related pertinent history and findings
        - Infants and children
        - Adolescents
        - Pregnancy
        - Geriatrics
        - Common abnormalities
    - Lymphatic System
        - Review of anatomy and physiology
        - Review of related history
        - Examination and Findings
        - Associated findings
        - Infants and children
        - Common abnormalities
        - Documentation terminology
    - Head and Neck
        - Review of anatomy and physiology
        - Review of related history
        - Examination and findings

        - Infants and children
        - Common abnormalities
        - Documentation terminology
    - Eyes
        - Review of anatomy and physiology
        - Review of related history
        - Examination and findings
        - Common abnormalities
        - Infants and Children
    - Ears, Nose, Throat, Neck
        - Review of anatomy and physiology
        - Review of related history
        - Examination and findings
        - Documentation terminology
    - Chest and Lungs
        - Review of anatomy and physiology
        - Review of related history
        - Examination and Findings
    - Heart and blood vessels
        - Review of anatomy and physiology
        - Review of related history
        - Examination and findings
        - Common abnormalities of the heart and blood vessels
        - Documentation terminology
    - Abdomen
        - Review of anatomy and physiology
        - Review of related history
        - Examination and findings
        - Infants and children
        - Older patients
        - Documentation terminology
    - Genitalia
        - Female - see Special Populations; Obstetrical and Medical Emergencies; Gynecological
        - Male
    - Musculoskeletal system
        - Review of anatomy and physiology
        - Review of related history
        - Examination and Findings
        - Specific landmarks in child development
        - Older patients
        - Common abnormalities
    - Neurological System
        - Review of anatomy and physiology
        - Review of related history
        - Examination and Findings

        - Examination of the non-responsive patient
        - Infants and children
        - Older patients
        - Common abnormalities
- Modifying the assessment for the patient with a life threatening emergency
    - Head to toe approach
    - Primary before Secondary
        - Secondary medical assessment order
        - Secondary trauma assessment order (see Trauma)

Monitoring Devices

EMR

No knowledge related to this competency is applicable at this level.

EMT

Simple depth, simple breadth
Within the scope of practice of the EMT

- Obtaining and using information from patient monitoring devices including (but not limited to)
- Pulse oximetry
- Non-invasive blood pressure

The EMT Instructional Guidelines in this section include all the topics and material at the EMR level PLUS the following material:

- Pulse Oximetry
    - Purpose
        - Assess oxygenation
        - Assess adequacy of oxygen delivery during positive pressure ventilation
        - Assess impact of interventions
    - Indications
    - Procedure
        - Refer to the manufacturer's instructions for the specific device being used
        - Considered alternative measurement sites
    - Limitations
        - General
        - Specific
- Non-Invasive Blood Pressure
    - Purpose
        - Obtaining blood pressure after manual blood pressure
    - Indication
        - Routine vital sign
        - Continuous monitoring of patient
    - Procedure
        - Refer to the manufacturer's instructions for the specific device being used

    - Limitations
        - Erroneous readings or values
- Other Monitoring Devices
    - As Additional Monitoring Devices Become Recognized as the "Standard of Care" in the Out-of-Hospital Setting, Those Devices Should Be Incorporated Into the Primary Education of Those Who Will Be Expected to Use Them in Practice
    - State regulatory processes may elect to expand, delete, or modify the monitor devices in this section

AEMT: EMT Material PLUS:

Within the scope of practice of the AEMT
Simple depth, simple breadth

- Obtaining and using information from patient monitoring devices including (but not limited to)
- Blood glucose determination

The AEMT Instructional Guidelines in this section include all the topics and material at the EMT level PLUS the following material:

- Blood Glucose Determination
    - Purpose
        - Assess blood glucose level
        - Assess impact of interventions
    - Indications
        - Decreased level of consciousness in the suspected diabetic
        - Decreased level of consciousness of unknown origin
    - Procedure
        - Cleaning the site
        - Refer to manufacturer's instructions for device being used
        - Disposal of sharps
    - Limitations
        - Lack of calibration
        - Venous versus Capillary sampling
    - Interpretation (see Medical Emergencies: Endocrine)
- Other Monitoring Devices
    - As additional monitoring devices become recognized as the "standard of care" in the out-of-hospital setting, those devices should be incorporated into the primary education of those who will be expected to use them in practice
    - State regulatory processes may elect to expand, delete, or modify from the monitor devices in this section

Paramedic: AEMT Material PLUS:

Fundamental depth, foundational breadth
Within the scope of practice of the paramedic

- Obtaining and using information from patient monitoring devices including (but not limited to):

- Continuous ECG monitoring
- 12 lead ECG interpretation
- Carbon dioxide monitoring
- Basic blood chemistry

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- Continuous ECG monitoring
    - Purpose
    - Indication
        - Patient's presenting with cardiac-related signs and symptoms or potential signs and symptoms of illnesses with cardiac impact
        - Used as advanced monitoring in pre-hospital care
    - Procedure
    - Limitation
    - Interpretation (see Medical Emergency: Cardiology)
- 12-Lead ECG Interpretation
    - Purpose
        - Shorten door to treatment time
        - May assist in field care of patient with pharmacological intervention
    - Indication
    - Procedure
    - Interpretation (see Medical Emergency: Cardiology)
- Carbon Dioxide Monitoring
    - Capnometry (Colorimetric)
        - Purpose
        - Indication
        - Procedure
        - Limitation
    - Capnography
        - Purpose
        - Indication
        - Procedure
        - Limitation
        - Interpretation (See Medical Emergency: Respiratory)
- Basic Blood Chemistry
    - Blood glucometer
        - Purpose
        - Indication
        - Procedure
        - Limitation
    - Cardiac biomarkers
        - Purpose
        - Indication
        - Procedure

        - Limitation
    - Other blood analyses
        - CHEM-7
        - BNP
        - Arterial blood gases (ABGs)
- Other Monitoring Devices
    - As additional monitoring devices become recognized as the "standard of care" in the out-of-hospital setting, those devices should be incorporated into the primary education of those who will be expected to use them in practice.
    - State regulatory processes may elect to expand, delete or modify from the monitor devices in this section

Reassessment

EMR

Simple depth, simple breadth

- How and When to Reassess
    - Identify and Treat Changes in the Patient's Condition in a Timely Manner
        - Monitor the patient's condition
        - Monitor the effectiveness of interventions
    - Reassess at Regular Intervals
        - Unstable patient every 5 minutes, but more often if indicated by patient condition
        - Stable patient every 15 minutes or as deemed appropriate by the patient's condition
    - Reassessment includes
        - Primary assessment
        - Vital signs
        - Chief complaint
        - Interventions
    - Compare to the Baseline Status of That Assessment Component
        - Level of consciousness
        - Airway
        - Breathing
        - Circulation adequacy
        - Vital Signs
        - Chief Complaint
        - Interventions
- Age-Related Considerations for Pediatric and Geriatric Assessment

EMT: EMR Material PLUS:

Fundamental depth, foundational breadth

The EMT Instructional Guidelines in this section include all the topics and material at the EMR level PLUS the following material:

- How and When to Reassess
- Identify and Treat Changes in the Patient's Condition in a Timely Manner
    - Monitor the patient's condition
    - Monitor the effectiveness of interventions
    - Identify trends in the patients vital signs
- Reassessments Should Be Performed at Regular Intervals
    - Unstable Patients – Every Five Minutes, or as Often as Practical Depending on the Patient's Condition
    - Stable Patients – At Least Every 15 Minutes or as Deemed Appropriate by the Patient's Condition
- A Reassessment Includes:
    - Primary Assessment
    - Vital Signs
    - Chief Complaint
    - Interventions
- Compare to the Baseline Status of That Component
    - Level of Consciousness – Is the Patient Maintaining the Same Level of Responsiveness or Becoming More/Less Alert?
    - Airway – Recheck the Airway for Patency
    - Breathing – Reassess the Adequacy of Breathing by Monitoring Both Breathing Rate and Tidal Volume
    - Circulation – Reassess the Adequacy of Circulation by Checking Both Central and Peripheral Pulses
- Vital Signs
    - Repeat Vital Signs as Necessary
    - Attention Should Be Paid to:
        - Respirations
        - Pulse
        - Blood pressure
        - Pupils
- Chief Complaint
    - Constantly Reassess the Patient's Chief Complaint or Major Injury
    - Determine If Their Pain/Discomfort Is Remaining the Same, Getting Worse, or Getting Better
    - Be Sure to Ask If There Are Any New or Previously Undisclosed Complaints
- Interventions – Reassess the Effectiveness of Each Intervention Performed and Consider the Need for New Interventions or Modifications to Care Already Being Provided
- Age-Related Considerations for Pediatric and Geriatric Assessment and Management

AEMT: EMT Material PLUS:

Same as Previous Levels

Paramedic: AEMT Material PLUS:
Complex depth, comprehensive breadth

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- How and When to Reassess
- Patient Evaluation: Reassessment
    - Chief complaint
        - Evaluate severity of chief complaint following treatment
        - Monitor associated symptoms
    - Examination
    - Re-evaluate prioritization based on information
    - Modify treatment plan as necessary based on reassessment
- Documentation
- Age-related Considerations
    - Pediatrics
    - Geriatrics