LIMMER EDUCATION

EMT Curriculum Correlation Guide

LIMMER EDUCATION

Dear EMS Educator,

In the three-plus decades we've worked in EMS education, we've seen our share of successes and flops in the classroom. Here we've put together quite a few items that have been successful for us and successful for many other educators along the way.

We're longtime advocates of the flipped classroom, and we believe you can run a high-quality flipped class in person or online. A flipped class requires hands-on activity and on-the-spot critical thinking. Done well, it brings out the best in students and educators.

In the era of COVID-19, we've learned some other critical lessons. We need to be thoroughly prepared for major interruptions in education. We also need to stay creative and innovative.

This curriculum guide is filled with free resources to help you plan a flipped EMS course that will keep students engaged, with flexible options for quality online learning:

App Correlation Guides – *If your class is using the EMT Audio Lecture app or EMT Review Plus app, this outlines the specific sections of each resource that you can apply to EMT course topics.*

Discussion Board Questions – *For each topic, you'll find several discussion board questions, which you can use for in-class discussion or online assignments.*

Regards-
Limmer Education Team
support@limmereducation.com

LIMMER EDUCATION

EMT Curriculum Guide & Discussion Board Questions

The following pages contain our resource guide for EMT classes. If your class is using the EMT Audio Lecture app or EMT Review Plus app, the **curriculum guide** outlines the specific sections in each resource you can apply to your course topics.

All educators can use the **discussion board questions** and most of the items in the Other Resources column for ready-to-go course content. Make sure you check out the **pathophysiology discussion questions.**

EMT Audio Lecture apps

We have two audio lecture series (EMT and AEMT) as well as a pathophysiology audio series for EMTs and AEMTs. These can help students get the equivalent of an insightful lecture or a solid review to supplement coursework. For details and pricing, visit **http://bit.ly/LCReady-Audio**

EMT Review Plus app

The EMT Review Plus app contains over 1,100 items including study cards, review questions and NREMT-style practice exams, with a rationale for every answer. Critical thinking, medical terminology and pathophysiology are included. For details and pricing, visit **https://bit.ly/EMT-Review-App**

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Part I:

Introduction to EMS

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Introduction to EMS

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Introduction to EMS		Discussion Board Questions (attached below)
Well-being of the EMT	Well-being Audio	Discussion Board Questions (attached below)
Medical-Legal-Ethical	Medical/Legal Audio	Discussion Board Questions (attached below)
Medical Terminology		Medical terminology study cards and review questions in the EMT Review Plus App.
Anatomy and Physiology		Discussion Board Questions (attached below)
Pathophysiology	Pathophysiology Lectures for the EMT (5 audio segments)	Pathophysiology study cards and review questions in the EMT Review Plus App.
Lifespan Development		Discussion Board Questions (attached below)
Lifting and Moving		Preparatory study cards and review questions in the EMT Review Plus App. Discussion Board Questions (attached below)

EMT Discussion Board Questions

Introduction to EMS

Find out which EMS agency responds to your home in an emergency and list it here. What happens if that agency is busy or out on calls? Find out the agency that would respond in their place. How much longer would it take for that ambulance to arrive?	This exercise is designed to make students familiar with their EMS system. Some may have experience already, but others won't. As for the next due ambulance, this introduces the concept of the larger EMS system, mutual aid, and response times.

Well-being of the EMT

The National EMS Memorial Service honors EMS providers killed in the line of duty. For this discussion, go to http://www.national-ems-memorial.org/honorees/ And choose five providers who have died in the line of duty. From this please answer the following questions: 1. What was the cause of death for each of the EMS providers you chose? 2. Did you find that the causes of death were what you expected? Why or why not? 3. List one thing you have learned about your own safety from this exercise.	Line of duty deaths may be quite foreign to the EMT student. We don't want to alarm students, but they must be made aware of the dangers that EMS providers face. Students are often surprised at what the causes of death are. When facilitating this discussion, remember that by seeing names and often images of those killed in the line of duty, it makes the concept more real.

EMT Discussion Board Questions

Medical-Legal and Ethical Issues

What do you think the three leading causes of lawsuits against EMS providers are? What things get you sued? List your top three. I will post the top three later in the week.	The three leading causes are ambulance crashes, bad outcomes after patient refusal, and injury to patients (e.g. dropped or tipped stretcher). Ask students how and why they believe these things happen. Ask how they can be prevented.
Ripped from the headlines: You are driving an ambulance into an intersection. You have your emergency lights activated but not the siren. You have the red light. A vehicle enters the intersection on the green light and there is a collision. An occupant of the car you struck dies. What could happen to you as the driver in this situation? (Provide a link to the article at some point in the discussion.) Article Here	Driving an emergency vehicle must be done with due regard to the safety of others. Failing to follow rules (like coming to a full stop at intersections when approaching a red light) can result in lawsuits as well as criminal charges in some cases. This is one of the biggest responsibilities an EMT has.

Lifting and Moving Patients

You are called to a home for a report of “fatigue.” You find a patient who tells you he is “Over 700 pounds…maybe 730 pounds.” Will your stretcher hold this weight? Check the stretcher in your classroom or look at user’s manuals for common stretchers. What other considerations will you have to move this patient from the house to the ambulance without injury to the patient or crew?	Most modern stretchers have a weight limit of between 500 and 850 pounds depending on the stretcher and manufacturer. Ask students how a patient that size would fit (or not fit) on the stretcher—and what additional resources would be necessary.

EMT Discussion Board Questions

Lifespan and Development

Rate each statement as true or false. Explain your answer.

1. Elderly patients usually spike high fevers when they get infections.
2. Most young children are cooperative and rational when injured and dealing with EMS.
3. Capillary refill is more accurate in the geriatric population than in children because of the developed and mature circulatory system.
4. After moving from the preschool to school-age and adolescent age groups, children are less fearful about disfigurement.
5. Geriatric patients experience chest pain when they have a heart attack, unlike younger patients who present non-traditionally.

1. False – temperature regulating mechanisms are not efficient in the geriatric population. Infections and even sepsis may not present with a high fever—or a fever at all.
2. False – Kids will be apprehensive when EMS is called for them. It is normal. It will take more time to get a child to warm up and cooperate.
3. False – poor circulation in the geriatric population makes a capillary refill time of up to 4 seconds normal in some geriatric patients.
4. False – as children get older, they think more about what peers think of them. Disfigurement is a major concern as body image is more in the forefront.
5. False – Geriatric patient may present without chest pain when having an MI. Weakness and respiratory distress are more common presentations in a “silent” MI in this population.

Anatomy and Physiology

Share one method you use to help remember bones or organs in the body. It may be a saying or mnemonic or even something silly.

List two bones or structures that you had trouble remembering. Share how you learned or remembered the right ones.

Both these questions are designed to get students to share their experience and insight from studying—and hopefully remembering—anatomy. If one student had an issue, others may as well. Add comments and encouragement (as well as corrections if necessary) to the discussion.

Part II:

Pathophysiology

EMT Curriculum Correlation Guide

Pathophysiology

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Pathophysiology	Ambient air, the airways and mechanics of ventilation Regulation of respiration Pathophysiology of perfusion Transport of gasses in the blood Why do we need to know about the cell?	Discussion Board Questions (attached below) Pathophysiology-Based Assessment (7 Things EMS podcast episode)

EMT Discussion Board Questions

Linking pathophysiology to common medical and traumatic conditions is vital to your student's education. Now that your students are learning remotely, the linking can be even more challenging. These pathophysiology exercises are designed to help bridge information you have already delivered with the medical and traumatic conditions you will be teaching about online. You may use this exercise in its entirety, by section, or as individual discussion board questions.

Pathophysiology: Application

Cardiac output is determined by heart rate x stroke volume. Blood pressure is determined by cardiac output x vascular resistance. Based on these calculations:

- Explain why the pulse increases when a patient loses blood from hemorrhage.
- Explain why the blood pressure drops in a severely bradycardic patient.
- Explain how the body compensates for reduced cardiac output.

If vascular resistance increases, what would you see in the following areas?

- Blood pressure
- Pulse pressure
- Skin color

Why would the body increase vascular resistance?

If stroke volume decreases, what would you see in the following areas?

- Cardiac output
- Blood pressure
- Skin color

What would cause the stroke volume to decrease?

Pathophysiology: Shock

Provide one example of a condition that could cause each of the following functional types of shock.

- Hypovolemic
- Distributive
- Cardiogenic
- Obstructive

Explain why obstructive shock may present with JVD when hypovolemic doesn't.

Pathophysiology: Medical

A patient is experiencing anaphylaxis.

- What happens to their vascular resistance? Why?
- What happens to their cardiac output? Why?

Explain why right heart failure may present with JVD while left heart failure doesn't.

A patient experiences cardiogenic shock after a myocardial infarction. Explain how shock will occur in each of these two situations.

- The MI affected the SA node causing a bradycardia of 38/minute.
- The MI affected the left ventricle and reduced its ability to pump.

A patient fainted at the sight of blood (not her own). She passed out and was guided to the floor without further injury. She quickly comes to.

- Why did she pass out? What happened to her heart and blood vessels?
- What nervous system was involved in causing the patient to pass out?

Why did she come to quickly after becoming supine on the floor?

Pathophysiology: Trauma

A patient lacerated their liver in a motor vehicle crash and is hemorrhaging.

- What happens to their cardiac output as a result of the internal hemorrhage? Why?
- What does the body do to compensate for the blood loss?

A patient was assaulted on the street by several subjects. They have an apparent closed head injury and you have obtained the following vital signs: P 102 R 18 BP 96/76. Skin cool and dry.

- Do you believe the patient's vital signs indicate a head injury? Why or why not?

You are working on a project in class. A fellow student makes a statement. "That patient doesn't have a tension pneumothorax. He doesn't have tracheal deviation."

- List the signs and symptoms of tension pneumothorax.
- Do you agree with your classmate or not? Why?

You are working on a case presentation with a classmate. The classmate states, "That patient can't be injured really badly. The mechanism of injury isn't significant."

- Do you agree with your classmate?
- Of the following three findings, which do you believe is the most reliable as far as predicting injury? Why?
    - Vital signs
    - Hands-on physical examination
    - Mechanism of injury

Part III:

Airway

EMT Curriculum Correlation Guide

Airway, Ventilation and Respiration

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Airway and Airway Maintenance	Airway Maintenance and Suction Audio	
Respiration, Ventilation and Oxygenation	Ventilation and Oxygenation Audio	Discussion Board Questions (attached below) Oxygen administration flowchart & video
Airway Overview		Airway study cards and review questions in the EMT Review Plus App. Discussion Board Questions (attached below)

EMT Discussion Board Questions

Respiration, Ventilation and Oxygenation

An EMT rides on two clinical internship shifts. On the first shift the first shift preceptor says, "Everybody gets oxygen. It helps and doesn't hurt." The next shift, a different preceptor says, "Oxygen is a drug. We don't use it all that much. Only when people are actually hypoxic." Who do you agree with? Why?	Oxygen is, in fact, a drug. It is administered for hypoxia. The American Heart Association recommended oxygen administration for patients with saturations below 94%. Hyperoxia (too much oxygen) can cause dangerous substances in the blood (free radicals) after heart attack or stroke treatment that actually do cause harm.
A fellow student asks you for help. She says, "I understand why we ventilate slow breathing. I just don't understand why we would ventilate rapid breathing…even if it is shallow." How would you help this student understand?	Adequate breathing requires both an adequate rate and adequate depth. One of the reasons shallow breathing (at any rate) can be considered failure is the concept of dead air space. Although the tidal volume can vary, the dead air space doesn't. If a patient breathes deeply with a tidal volume of 500 ml., the 150ml average adult tidal volume doesn't cause problems. The amount of air reaching the alveoli (alveolar volume) is 350 ml. But if breathing is shallow—even half of the normal breath which occurs in very rapid breathing—250 ml tidal volume minus 150 ml of dead air space results in 100 ml of alveolar volume and respiratory failure.
Patients who are hypoxic develop an altered mental status. Explain how a patient's mental status might present with minor hypoxia and with significant hypoxia. How would you correct the hypoxia?	Hypoxia is corrected by oxygen. Minor hypoxia may result in a feeling of anxiety or anxiousness. Increasing hypoxia may cause agitation. This is because the brain is not tolerant of any reduction of the levels of oxygen.

EMT Discussion Board Questions

Airway Overview

For each of the following conditions or situations, describe whether the problem is with the upper or lower airway and predict what abnormal airway sound would be present. Explain your answers.

- Asthma attack
- An unresponsive patient's tongue has fallen backwards into the airway
- A young child swallowed a coin and has a partially obstructed airway
- Closed airway from an allergic patient eating peanuts
- A patient was stabbed in the chest and has a collapsed lung
- An unresponsive patient vomited and has liquid foreign mater in her airway.

- Asthma attack – lower airway, wheezing
- An unresponsive patient's tongue has fallen backwards into the airway – upper airway, snoring
- A young child swallowed a coin and has a partially obstructed airway – upper airway, stridor
- Closed airway from an allergic patient eating peanuts – upper airway, stridor
- A patient was stabbed in the chest and has a collapsed lung – lower airway, absent sounds
- An unresponsive patient vomited and has liquid foreign matter in her airway – upper airway, gurgling sound

Part IV:

Patient Assessment

EMT Curriculum Correlation Guide

Patient Assessment

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Scene Size-up		
Primary Assessment	Primary Assessment Audio	Patient Assessment Flowchart & Video Unique Patient Signs Case Study (Article)
History & Vital Signs		
Secondary Assessment	Secondary Assessment Audio	Patient Assessment Flowchart & Video
Reassessment		
Communication & Documentation		
Assessment Overview		Patient Assessment study cards and review questions in the EMT Review Plus App.

EMT Discussion Board Questions

Scene Size-up

Scene size-up discussion (may be used individually or as an A/B in the same discussion) *You are returning to the station after a call when you come upon a two-vehicle collision. One of the cars is on fire. The flames are moving from under the hood to under the dashboard in the passenger compartment. There is thick smoke inside the car. A woman is frantic and screaming that she can't get her baby out of the car seat because the straps are stuck. What do you do?* What if you were in your ambulance and came upon a domestic dispute where a man was striking a woman on a street corner? She was knocked to the ground and he is now kicking her? What would you do? Bystanders are screaming for you to do something.	This discussion is about risk. You will get different responses from different people about each of the two scenarios. Few will be truly right or wrong. Focus on questions like, "How could you minimize the risk to yourself while still helping? What do you think could happen to you? Could some actions make the situation worse?"

Primary Assessment

The National Registry of EMTs considers it a "critical criterion" (grounds for failure of the practical station) if you do any part of the secondary assessment before completing the primary assessment. Why do you think this is? Give one example of where doing this may hurt a patient.	Emphasize that the primary assessment is about life threats. They must be addressed before other assessments or procedures are done. Remind your students that not everyone will have life threats and for those patients, the primary assessment will go relatively quickly. It may be interesting to ask about patients with multiple threats (need suction and severe bleeding). How would they determine priorities? Give examples if necessary, of how not doing the primary assessment first could cause harm. One example is how respiratory failure could be missed, making the patient increasingly hypoxic and lead to respiratory arrest.

EMT Discussion Board Questions

History and Vital Signs

A fellow student in class is having trouble hearing the pulse sounds while taking a blood pressure. List three things you could tell them to help with the problem.	A fellow student in class is having trouble hearing the pulse sounds while taking a blood pressure. List three things you could tell them to help with the problem.
You are taking a blood pressure during your field ride time for EMT class. You hear the beats but aren't quite sure where they started to get the systolic reading. You think it was about 130 mmHg. You are confident that the diastolic pressure was 74 mmHg. What should you do? Why?	If a student isn't sure about the BP, they should take it again on the other arm. Never guess. Never use the bumping of the needle on the gauge to determine the BP.

Communication and Documentation

You are called to a teenage female with lower quadrant abdominal pain. You know that you have to ask about pregnancy, birth control use, and menstruation but you feel a bit uneasy about doing so. The patient's father is present in the room. How would you ask about those personal things? Will the father being in the room help or hinder the situation?	This answer will depend on the student's life experience and comfort levels. Generally, asking the questions when the father isn't present will result in more reliable answers. Use common terms (not always complex clinical terms) and be sincere when you ask about any issues like sex, pregnancy, menstruation, and other topics. Many patients will answer them without issue—the issue sometimes resides with the EMT!

EMT Discussion Board Questions

Assessment Overview

A “pertinent negative” is something you need to know, even if the answer is no. For example, in a patient with chest discomfort, you must ask whether they have breathing difficulty. List two pertinent negatives (things you must know the answer to) for each of the complaints listed below. • Chest discomfort • Abdominal pain • Syncopal episode	Some examples for the three patient presentations are below. There are many potential answers that may be correct. This is to help get students thinking independently. If they get stuck, refer them to the body system exams concept to learn what to assess for. • Chest discomfort – the student should ask about respiratory distress, if the pain radiates to the neck, jaw, or shoulder, if it hurts worse when they take a deep breath, and others. • Abdominal pain – basically the student needs to know what goes in (oral intake), what comes out and when (vomiting, urination, bowel movements), and what those things look and smell like. Was there any blood in vomit or feces? • Syncopal episode – did the patient have any chest pain or palpitations before the episode? Did the patient have any other sensations (dizziness, etc.) before the episode?

Part V:

Medical Emergencies

EMT Curriculum Correlation Guide

Medical Emergencies

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Pharmacology		Discussion Board Questions (attached below) Polypharmacy in the Elderly (Article)
Respiratory Emergencies	Respiratory Audio – Asthma Respiratory Audio – COPD	Discussion Board Questions (attached below) Drowning Case Study (Article)
Cardiac Emergencies	Cardiology Audio – Acute Coronary Syndrome Cardiology Audio – Resuscitation Cardiology Audio – Heart Failure	Discussion Board Questions (attached below)
Altered Mental Status (diabetes, stroke, overdose, etc.)	Intro to Altered Mental Status and Opiate Overdose Audio Stroke Audio Seizure Audio	Discussion Board Questions (attached below) Stroke Mimic Case Study (Article) Seizure Case Study (Article) Opioid Overdose Case Study (Article)

EMT Curriculum Correlation Guide

Medical Emergencies

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Anaphylaxis	Anaphylaxis Audio	
Abdominal Emergencies		
Psychiatric Emergencies		
Hematologic & Renal Emergencies		
Medical Overview		Medical Emergencies study cards and review questions in the EMT Review Plus App.

EMT Discussion Board Questions

Medical Emergencies: Respiratory

Your patient has respiratory distress. Explain why each of the following findings may be seen: • Wheezes • Crackles • JVD • Pedal edema • Anxiety or anxiousness	This question focuses on the causes of each of the signs listed. Wheezing is caused by air moving through narrowed bronchioles. Crackles result from fluid, often from left heart failure. JVD in this case would likely be caused by right heart failure (but there are other causes). Pedal edema is dependent and often a result of right heart failure. Anxiety in many patients is an early sign of hypoxia since the brain is very intolerant of reduced oxygen levels.
You are caring for an 18-year-old female with asthma. She is experiencing an attack. She states, in short breaths, "I don't know why I keep having these attacks." She has inspiratory and expiratory wheezes. Her vital signs are P 102 R 22 BP 142/88 SaO2 92% on room air. She used her inhaler twice (two puffs each) in the past 30 minutes. Please answer the following questions: • What are the triggers for an asthma attack? • Can you administer additional bronchodilators • (inhaler/nebulizer) to this patient? Why or why not?	Viral respiratory infections, allergies, and exercise are common triggers of asthma. There are other, less common triggers your students might find like air temperature and aspirin. This patient is young, and while slightly tachycardic, it's still prudent to administer bronchodilators by inhaler or small volume nebulizer. Reducing respiratory distress and hypoxia would likely have a positive effect on the pulse. Be sure to discuss the difference between a NREMT answer and your local protocols in questions like. The NREMT correct answer may be to administer the med while your protocols may require med control contact at the EMT level.
You are called to a 15-year-old patient with respiratory distress. The parents say that their son can be dramatic, and they don't know if he is having an asthma attack or hyperventilating. How would you differentiate? List at least three things you would look for to decide	This will show you how deeply your students read and understand. Asthma has prolonged expiratory times, wheezing, and response to bronchodilator medications. With capnography, EtCO2 is reduced in hyperventilation while potentially increased in asthma. Asthma would also potentially show the shark fin pattern. Students should never simply assume it is drama unless relevant clinical conditions are ruled out.

EMT Discussion Board Questions

Medical Emergencies: Cardiology and Resuscitation	
When would you use a CAB approach, and when would you use an ABC approach? Provide a brief patient presentation/situation for each.	CAB is used when no signs of life (breathing or movement) are observed from the patient. This may be accompanied by poor color and other signs of pulselessness. In the CAB approach, you would go right to a combined pulse and breathing check. If no pulse, begin compressions immediately. Everyone else gets an ABC approach.
The American Heart Association has eliminated pulse checks after each defibrillation. Explain two reasons for this.	One reason is that the more time spent doing compressions, the better pressure for perfusion. Pulse checks take time away from compressions. The other reason is that even with ROSC, blood pressure doesn't just jump up to a normal level immediately. The CPR provides a bridge until the patient's circulation can take over. Terms and concepts to add into posts as subsequent / follow-up questions include: • What does ROSC stand for? • What might you see if a patient does regain a pulse?

EMT Discussion Board Questions

Medical Emergencies: Altered Mental Status

You are dispatched to the scene of a motor vehicle collision. A 46-year-old male is in one vehicle and appears confused. The police say he is intoxicated but want him “checked” before they take him to the station. He has a small red mark on his forehead and no other obvious injury. For this patient: • Explain how you would try to differentiate between a head injury, hypoglycemia, and intoxication. • Do you believe it is in your scope of practice to “clear” patients for the police in situations like this? Why or why not?	There are several things that may be observed or assessed, including blood glucose, breath odors, what the patient states, signs of injury, skin color, temp and condition, vital signs, and more. It is always interesting to see what students come up with. In this case, it isn’t always possible to clear the patient without the assessment and diagnostic tests available at a hospital. The head injury is the complicating factor. It is usually not recommended. Follow up question: If this patient wanted to refuse, would he be able to do so because of his confusion?
There are many different types of seizures. Describe what each of the following would look like when they occur: • Aura • Tonic activity • Clonic activity • Post-ictal period • Absence seizure • Simple partial seizure	This asks for classic definitions of seizures and may be found in the student's textbook. It is designed to get the student into the book or other reference sources and apply a description to them. Follow up question: Why would a patient with a history of seizures experience another seizure if they take medications to prevent them? (answer – patients may not take their medication or take less because of financial considerations or the way it makes them feel. Some stop because they haven’t had a seizure in quite some time.)
Hyperglycemia has signs and symptoms, often referred to as the "three P's" polyuria, polydipsia, and polyphagia. Explain what each one is and why each one is seen in the hyperglycemic patient.	Polyuria – glucose is a large molecule that begins to spill into the urine at about 180 – 200 mg/dL. The large molecule pulls water with it. This causes excess urination. Polydipsia – the patient is thirsty because of dehydration (see excessive urination). Polyphagia – although the blood is high in glucose, the cells in the body can’t access it. So, the body sends out a signal for more food (glucose).

EMT Discussion Board Questions

Medical Emergencies: Altered Mental Status	
The crew before you used all of the test strips in your blood glucometer. There are none available—and you have a diabetic patient. List three things that might indicate your patient is hypoglycemic and three things that might indicate your patient is hyperglycemic.	Hypoglycemia often has a sudden onset. The patient usually has moist skin. The history may include taking more insulin, a runaway insulin pump, an unusual amount of exercise, or decreased intake. IDDM history is also more common. Hyperglycemic patients will usually have dry skin, may have an acetone breath odor, have a history of NIDDM, and experience a gradual onset. If you ask this question along with the one above, ask for things other than the three Ps.
Your patient has a history of Type II/NIDDM diabetes. She has an unusual breath odor and dry, warm skin. No blood glucose measurement is available. Your partner said that the “rule” is “when in doubt, give glucose.” Do you believe this patient should receive oral glucose? Do you believe that rule is appropriate?	Make sure your students know that the history of type II/NIDDM tends to go toward hyperglycemia, and this is compounded by the breath odor (acetone/ DKA) and dry skin. Even without the technology available today, we shouldn't use blanket rules in place of thinking. The issue is that we are hesitant to miss a potentially correctable condition (hypoglycemia). This doesn’t mean we can’t think and assess before making a decision.

EMT Discussion Board Questions

Medical Emergencies: Poisoning and Overdose

You find a 26-year old male in a dormitory room with a needle by his arm. He responds by moaning to a firm trapezius pinch. His vital signs are P 88 R 20 BP 102/68 SaO2 90%, and his skin is warm and dry. • Would you administer naloxone to this patient? • Is there any additional information you would like to know to make this decision?	This question is definitely on the edge – intentionally. His pulse, respirations, and sats don't scream respiratory failure or arrest—and he responds to pain. The main thing is that we want students to make decisions based on their evaluation of his respiratory effort—and not the ability to "wake him up." Asking about respiratory depth, minute volume, chest movement, reevaluation after a time period, or a decision to ventilate show what a student is thinking.
You are called for an unresponsive man at a residence. You find a man unresponsive on the couch. Two other family members say they don't feel well. • What are your first actions? • Are the two other family members patients? Why or why not? • What assessment and care do you provide for patients at this scene?	This is potentially a carbon monoxide situation. Safety first. Realizing the cause is important. All become patients. Assessment and care should be guided by their level of responsiveness with ventilation provided for patients in failure. Carbon monoxide oximetry may be available. Older versions haven't shown to be accurate, but it is worth getting a reading if that technology is available. Oxygen administration is indicated. A great follow-up question would be what students expect the patient's pulse oximetry to be. It may be high because of the binding of carbon monoxide to hemoglobin.

EMT Discussion Board Questions

Medical Emergencies: Allergy and Anaphylaxis

List three ways you could distinguish between an asthma attack and anaphylaxis. Explain how each finding would be valuable.	Hives, hypotension, upper airway sounds/swelling (asthma is a lower airway disease), GI distress and/or diarrhea, and a history of allergies are at the top of the list. Your students may think of others. Both conditions can cause wheezing.
A 25-year-old female was stung by a bee. She is allergic to bee stings. She is alert and complains of a developing “lump in her throat.” She has hives and swelling in her upper arm, where she was stung. Her vitals are P 88 R 16 BP 110/88 SaO2 96% on room air. Should you administer an epinephrine auto-injector? Why or why not? Justify your response.	This was chosen to be a challenging decision. The important part of this discussion is to recognize that many patients fall somewhere in the middle like this. On the administer epi side, we have a sensation in the throat with a prior allergy to bee stings. The pulse pressure is narrowing slightly. On the other hand, the pulse and respirations aren't the worst, and the patient is alert. As a follow-up question, ask what your students would look for to indicate worsening and a need for the auto-injector.

Part VI:

Trauma

EMT Curriculum Correlation Guide

Trauma Emergencies

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Bleeding & Shock	Bleeding Audio Shock Audio	Discussion Board Questions (attached below) Vital Sign Trends (Videos)
Soft Tissue Trauma	Soft Tissue Trauma Audio	
Chest & Abdominal Trauma	Chest Trauma Audio Abdominal Trauma Audio	Discussion Board Questions (attached below)
Head Injuries & Spinal Trauma	Head Trauma Audio Spinal Trauma Audio	Discussion Board Questions (attached below) Traumatic Brain Injury (Article)
Musculoskeletal Trauma		Discussion Board Questions (attached below)
Multi-system Trauma		Crush Syndrome: A Case Study (Article) Compartment Syndrome: A Case Study (Article)
Trauma Overview		Trauma Emergencies study cards and review questions in the EMT Review Plus App.

EMT Discussion Board Questions

Trauma: Bleeding and Shock

You are at a trauma call with your experienced partner. Your patient was kicked in the abdomen by a horse. She says, “Let’s get moving! I don’t like the way this guy looks.” Other than the obvious mark from the kick, list 3 or 4 things you think you might find or observe in this patient that would justify her belief he may be serious.	• Rapid pulse and respirations • Cool, pale, moist skin • Anxiety or change in mental status • Narrowed pulse pressure or low blood pressure
Your patient was stabbed in the left chest. One crew member on the scene believes the patient has cardiac tamponade. Another believes it is tension pneumothorax. List three ways these conditions will present similarly and two ways you could potentially tell them apart.	Both might present with JVD, tachycardia, reduced preload/narrowed pulse pressure, hypotension, poor skin color, etc. Lung sounds are a big differentiator. Muffled heart sounds would be present in tamponade but maybe difficult to discern.

Trauma: Injuries to Head, Neck and Spine

Consider two patients. Both were struck in the head by an assailant. One patient has a concussion. One patient has a subdural hematoma. Look up the signs and symptoms for both conditions. • How are they similar? • How are they different? • Which is more serious? • Can you distinguish between them in the field?	These conditions may be surprisingly similar at the outset. It is difficult to differentiate without more advanced clinical assessment and diagnostic tests. This issue is that the subdural can come on gradually —after the patient has left your care. It is more serious.
A patient with increasing intracranial pressure will develop signs and symptoms, including an elevated blood pressure and decreasing pulse. Explain how and why these vital signs occur.	The elevated blood pressure is the body’s attempt to perfuse the brain against the increasing pressure within the skull. The reduced pulse is a result of the baroreceptors sensing the elevated blood pressure. They advise the body to lower blood pressure. This is done by lowering the pulse in an attempt to lower cardiac output.

EMT Discussion Board Questions

Trauma: Injuries to Head, Neck and Spine

Define the following terms and list one condition where you might see each. • Hemiplegia • Paraplegia • Quadriplegia • Paresthesia	**Hemiplegia** – paralysis on one vertical half of the body. **Paraplegia** – paralysis of the lower extremities. **Quadriplegia** – paralysis of all four limbs. **Paresthesia** – pins and needles sensation or numbness
A patient has a spine injury which has left him essentially unable to breathe. What level of the spine (or higher) would the injury likely be at? Why?	Cervical vertebrae 3-5 is the area responsible for breathing. The rhyme “C3-4-5 keeps the diaphragm alive” helps to remember this.

Trauma: Abdomen

What is the difference between hollow and solid organs when it comes to damage to each in trauma? For each of the following, describe whether they are solid or hollow and list a mechanism or type of injury when the organ may be injured. • Liver • Spleen • Pancreas • Stomach • Small bowel/intestine • Large bowel/intestine	Hollow organs often contain digestive enzymes, acids, and food at some point in the digestive process. This creates pain and irritation when loose in the abdomen. Solid organs (liver, spleen, pancreas) are vascular and bleed. Hollow organs can rupture spilling contents into the abdominal cavity, causing pain and subsequent infection.

EMT Discussion Board Questions

Trauma: Musculoskeletal

You are treating a patient who has a closed, angulated fracture of his tibia and fibula. Based on this, answer the following questions.
• Would you straighten the extremity? Why or why not?
• What effect would straightening the extremity have on…
  ◦ the splinting process
  ◦ blood loss
  ◦ nerves and blood vessels in the extremity
• Are there are times you definitely would or wouldn't straighten the extremity? Why?
	Generally, angulated extremities (long bone) are straightened. This makes splinting and transport easier. It may also reduce the size of the space in the area of the fracture and help limit bleeding.
	
	Long bones should be straightened unless there is resistance or an unusual amount of pain. It is a painful process normally.
	
	When straightening is done properly, damage to surrounding structures is minimal.

An experienced EMT you are working with said, "Multiple extremity fractures are multiple trauma." Do you agree with this statement? Explain why or why not.	Bones themselves bleed. Damage may also be done to surrounding vessels and tissue. If this occurs to multiple extremities, it is considered multiple trauma because of the potential for blood loss. It also takes considerable force to break multiple extremities, so the potential for other injuries exists.

Part VII:
Special Populations

EMT Curriculum Correlation Guide

Special Populations

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Obstetrics/GYN	Obstetrics Audio – Normal Delivery Obstetrics Audio – Complications and Neonatal Resuscitation	Discussion Board Questions (attached below) Postpartum Emergencies: Three Case Studies (Article)
Pediatrics	Pediatric Emergencies Audio	Pediatric Case Study (Article) Pediatric Trauma (Article)
Geriatrics	Geriatric Emergencies Audio	A Tale of 5 Geriatric Patients (Audio)
Patients with Special Challenges	Special Populations Audio	
Special Populations Overview		Special Populations study cards and review questions in the EMT Review Plus App.

EMT Discussion Board Questions

Special Populations: Obstetrics/GYN

Two positions are used to transport pregnant patients who are experiencing problems during the third trimester. One is with the supine patient rolled slightly to the left (putting padding under her right side), and the other is elevating the hips/head-down position. What is each position used for? How does each position help the patient and fetus?	The supine patient should be rolled to the left by propping pads under her right side. This prevents supine hypotensive syndrome. Elevating the hips/head-down position is used in conditions like prolapsed cord and limb presentation to use gravity to slow down the birth process.
Define each of the following conditions. Identify the ones which are likely to be delivered in the field successfully. Explain why. • Single birth • Multiple births • Breech presentation • Limb presentation • Prolapsed cord	The single birth and multiple births may be delivered in the field successfully. Multiple births may be of lower birth weight and delivered before full term, so caution is advised. Breech birth may deliver, but potential complications are higher. Limb presentation and prolapsed cord are not delivered in the field.

Part VIII:
Operations

EMT Curriculum Correlation Guide

EMS Operations

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Operations and Haz Mat	Operations Audio	
MCI/ICS	MCI/ICS and Triage Audio	
Operations Overview		Operations study cards and review questions in the EMT Review Plus App.

Part IX:

NREMT Prep

EMT Curriculum Correlation Guide

NREMT Exam Preparation

EMT Course Topic	EMT Review Audio Lectures App Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	Other Resources
Exam Prep	Practical Exam Success	Critical Thinking and Mental Conditioning study cards and review questions in the EMT Review Plus App. Five 100-question cumulative test, also in the EMT Review Plus App. Sample ALS Scenario Testlet The Ultimate Free NREMT Prep Guide Four Steps to Evaluating an NREMT Question.

EMT Curriculum Correlation Guide

About the resources in this curriculum guide:

EMT Audio Lecture apps

We have two audio lecture series (EMT and AEMT) as well as a pathophysiology audio series for EMTs and AEMTs. These can help students get the equivalent of an insightful lecture or a solid review to supplement coursework. For details and pricing, visit **http://bit.ly/LCReady-Audio**

EMT Review Plus app

The EMT Review Plus app contains over 1,100 items including study cards, review questions and NREMT-style practice exams, with a rationale for every answer. Critical thinking, medical terminology and pathophysiology are included. For details and pricing, visit **https://bit.ly/EMT-Review-App**

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