

Altered Mental Status Differentials

Dynamic Learning Exercises

Instructor and Student Templates

Dear Educator,

This package contains an active learning medical emergencies exercise for you to use in your classroom.

The concept of differential diagnosis is an important one for EMTs. There is probably no better place to give this a try than with an altered mental status patient. This exercise provides a basic scenario and asks students to come up with possibilities to explain the patient's altered mental status. The second part of the exercise asks students to come up with strategies to either rule in or rule out the potential causes they chose. This is an excellent exercise to get students to think in the classroom—and for you to guide them to success.

I personally created these exercises for use in my EMT classes. I have a core belief that activities such as these are multipliers in the classroom. They multiply your student's understanding. They multiply your reach and ability to teach concepts rather than facts. Perhaps most importantly, they place the student squarely in the role of "learner."

I recognize that many educators worry that these "multipliers" take away from lecture time. While I can't argue the way that time passes in class, I can assure that doing a bit less lecture and using these dynamic exercises is truly an investment. If you don't currently use this type of exercise, please give it a try. If you use other active learning methods I hope these will fit into your classroom experience.

Wishing the best for you and your students,



Dan Limmer
Chief Passologist and Co-Founder, Limmer Education



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Instructor Notes:

This is an exercise in developing a differential diagnosis. Don't tell the students this until they have completed question 1.

After they have completed question 1 explain this is how seasoned EMS and medical providers think. They will have treatments for diabetes and possibly overdose (naloxone). Identification of stroke is important to transport to an appropriate facility and make notifications.

You may have to help focus some of the things students say. For example, stroke, seizures and overdose are very likely. Anaphylaxis is less likely because respiratory or skin signs would likely be present (although hypoxia can cause an altered mental status). Differentiating the zebras from the horses may be necessary.

You are called to the scene of a "man down." You arrive to find a man on the ground outside a local supermarket. The man appears to be responsive but a little confused. He can answer directions and answer basic questions. He is in his 40s-50s. He shows no signs of injury or trauma (e.g. getting assaulted or hit by a car).

1. List at least 5 medical conditions that may be causing the patient's altered mental status.

Students may choose stroke, seizure, alcohol overdose, drug overdose and diabetic conditions. Sepsis, dementia, disability, developing SDH from prior injury and others are less likely but may be chosen. And there are many others. It is your job to facilitate.

2. For each of the conditions above, list two or three things that might help you confirm that diagnosis on scene.

Have the students come up with these. They may include BG monitoring, medical history, stroke scale, odors, things found on scene, bystander or family information, etc.

