



Seattle-King County EMS

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CBT/OTEP 165 **SICK/NOT SICK**

print version of EMS Online Course
www.emsonline.net

Introduction

The EMS provider's chief aim is to decide who is critically ill and who is not. SICK/NOT SICK is a method of rapid patient assessment that helps you make good decisions based on proven clinical indicators.

This course will guide you through the process for an adult patient. It is intended for newly trained EMS providers as well as the seasoned veteran.

Before You Begin

This is a continuing education and recertification course for EMTs. It covers fundamental EMT-Basic concepts and terminology as well as advanced material. We highly recommend completing the case studies and practice exam before completing the exam.

We also recommend that you review an EMT textbook chapter covering cardiovascular emergencies as a refresher before taking the exam; for example: Chapter 8 – Initial Assessment in *Emergency Care and Transportation of the Sick and Injured*, 9th edition (AAOS).

Practical Skills

To receive CBT or OTEP credit for this course a trained skills evaluator must evaluate your ability to perform the following hands-on practical skills.

- Dressing and bandaging of open and closed injuries
- Emergency care for an open chest wound or abdominal injury
- Emergency care of burns

Objectives

CBT165 is an online EMS continuing education module for EMS providers. It addresses initial assessment of the adult patient. After completing this course you will be able to:

1. Identify the purpose of SICK/NOT SICK.
2. Identify definitions of the SICK and NOT SICK.
3. Identify the elements of a clinical picture (medical).
4. Identify the elements of a clinical picture (trauma).
5. Classify patients as either SICK or NOT SICK.

Terms

index of suspicion — The anticipation that certain types of accidents will result in certain types of injuries.

mechanism of injury — The forces of injury and how they were applied to the body.

nature of illness — Circumstances or findings that suggest a possible disease.

perfusion — The flow of blood through the organs and tissues of the body.

RPM — An acronym that stands for respirations, pulse and mental status.

skin signs — Observable indicators of circulatory status that include skin color, temperature and moisture.

New Terms

NOT SICK — Someone who appears **physiologically stable** as indicated by adequate respirations, pulse, mental status, skin signs and an appropriate body position. Other terms that mean NOT SICK include non-critical, non-urgent or stable. NOT SICK does not mean not ill or injured...only that the condition does not appear life threatening at the current moment.

SICK — Someone who appears **physiologically unstable** as indicated by clinical indicators: inadequate respirations, weak pulse, altered mental status, poor skin signs or an inappropriate body position. Other terms that mean SICK include critical, urgent or unstable.

What is SICK/NOT SICK?

The purpose of SICK/NOT SICK is to help you accurately determine who is critically ill and who is not. This approach assures a rapid initial assessment and prevents delays in patient care.

The ability to recognize important clinical indicators and know when to begin appropriate treatment is the essence of emergency care. A key goal of the EMS provider's job is to determine who is critically ill and who is not. SICK/NOT SICK helps you make this decision.

SICK/NOT SICK is not a new idea. EMTs, paramedics, nurses and physicians have used it for years. Even if you already use a similar approach in your assessment of patients, this program will confirm what you've learned through experience. If your field experience is limited, SICK/NOT SICK will give you a framework for approaching all your calls.

The purpose of SICK/NOT SICK is to prevent delays in patient care. This requires observing the important indicators of physiologic function.

By applying the concept of SICK/NOT SICK to your existing practice, all EMS providers will be on the same page facilitating coordination and communication in the field. The result is better patient care.

**SICK/NOT SICK helps you quickly
make decisions and avoid delaying treatment.**

SICK Patients Require Action

SICK/NOT SICK prevents delays in decision-making--the biggest mistake made in patient assessment. It requires you to act on your initial impression rather than wasting time trying to interpret or diagnose a confusing set of signs and symptoms.

Action is the key word when a patient is seriously sick or injured. You must provide prompt emergency care such as:

- ABCs
- Control bleeding
- Update incoming units
- Rapid extrication
- High flow oxygen therapy
- Treat for shock
- Request advanced life support
- Prepare for transport

SICK

A SICK patient is one who appears **physiologically unstable** as indicated by key clinical signs. This patient has what you think may be a life-threatening injury or illness and needs immediate BLS care and advanced life support (ALS).

The SICK patient can die quickly unless you initiate aggressive BLS and ALS treatment and rapid transport.

You can identify a SICK patient by looking at six clinical indicators: respirations, pulse, mental status, skin signs, body position or evidence of significant mechanism of injury.

Generally, these indicators are all abnormal in the truly SICK patient. However, it may take only one degraded indicator to decide that a patient is SICK. For example, the following are "red flags" for a serious underlying problem:

- Significant mechanism of injury
- Respiratory distress
- Weak or no radial pulse
- Altered mental status
- Poor skin signs
- Inappropriate body position

NOT SICK

A NOT SICK patient is someone who appears **physiologically stable** as indicated by adequate respirations, pulse, mental status, skin signs and an appropriate body position.

He or she may be ill or injured and in need of care, but the condition is not life threatening at the moment.

**NOT SICK does not mean "not ill" or "not injured."
It means the patient is physiologically stable at this time.**

NOT SICK Means No Apparent Life Threats

The NOT SICK category does not mean there is nothing wrong with a patient. It simply means that you see no life-threatening conditions at the current time.

The NOT SICK category gives you time to collect more medical history and perform a detailed exam. You will treat the NOT SICK patient with appropriate care such as oxygen therapy and position of comfort, and perhaps even an ALS evaluation.

If at any time during the course of caring for the NOT SICK patient, you encounter information that suggests a life threat, you can reclassify the patient as SICK and move to a more aggressive response.

While En Route

SICK/NOT SICK gets things underway early in a call--information is collected, treatment is started, transportation is initiated and decisions are made without delay. The practice of discussing a call with your partner while en route helps you formulate a plan before arriving on the scene. You're way behind the curve if you wait until you arrive.

Formulate **three possible scenarios** while en route based on the dispatch information.

Why Stalling is Bad

Stalling or delaying decisions on the scene results in poor patient care. In order to really help your patients, you need to do one thing really well...make decisions. Stalling or delaying does nothing to help an ill or injured patient.

One way to improve your patient assessment and prevent stalling is to discuss what you know about the call while en route. Come up with three possible scenarios based solely on the information provided in the dispatch.

For Example: On the way to a call...

You are dispatched to a 35-year-old female with syncope. You can begin this call by discussing with your partner questions such as:

- What can cause syncope?
- What is the patient's environment?
- What equipment might we need?
- What is our plan on arrival?

Three possible scenarios for this call include:

- Ectopic pregnancy
- Cardiac-related emergency
- Drug overdose

The Clinical Picture

The clinical picture is an impression or mental image you form from observing a patient. The clinical picture for a medical patient has these basic elements:

- Chief complaint/nature of illness
- Respirations
- Pulse
- Mental status
- Skin signs
- Body position

Together these indicators form the clinical picture and reflect the overall performance of the respiratory, cardiovascular and neurologic systems. This gives you a sound medical basis for quickly deciding if someone is unstable or stable—SICK or NOT SICK.

Clinical Picture is Your Impression

The clinical picture is not a diagnosis. It is simply your impression of whether the patient is likely to survive without immediate and aggressive action. Some EMS providers call it "gut feeling." This feeling is based on the observation of reliable clinical signs.

Go With What You Know

Form the clinical picture based on your observations and make a decision based on the clinical picture. You do not need to definitively diagnose the problem to be effective in the initial treatment. When things are confusing, provide the basics: airway, breathing and circulation.

**Do not make your decisions based on the flip of a coin.
Base them on clinical indicators.**

CC and NOI

The patient's **chief complaint** provides a starting point for your assessment. The chief complaint can help focus on which body systems or areas are affected.

The **nature of illness** (NOI) is any information that hints at a probable cause for a chief complaint in a medical patient.

Nature of Illness

The nature of illness is any circumstances or findings that suggest a possible disease.

For example, a history of fever lasting two days followed by a stiff neck may suggest meningitis. Another example is weakness in an elderly woman that may suggest a myocardial infarction.

Respirations

You can assess respiratory function by observing **respiratory rate, respiratory character** and body position. A respiratory rate can be normal, fast or slow. Respiratory character can be normal, labored, or shallow.

A patient with shallow respirations is SICK...so is someone with labored breathing or dyspnea.

Pulse

The presence of a **pulse** and **pulse character** are good indicators of cardiovascular function. Check the pulse by palpating the radial pulse in a conscious patient. Check the carotid pulse in an unconscious patient.

Pulse Character

The character of a pulse can be either bounding, weak, regular or irregular. A bounding pulse can be caused by anxiety, excitement, medication/drug overdose, fear or cardiac medications. A weak pulse can be caused by hypovolemia, hypotension or a damaged heart and can indicate impending circulatory system collapse. Cardiac dysrhythmias can cause an irregular pulse and can be associated with cardiac disease.

Mental Status

You can determine if there is adequate perfusion of the brain and proper neurologic function by checking a patient's mental status, for example, by using the AVPU scale.

Abnormal behavior, such as lethargy or disorientation, can be a sign of underlying disease or injury and poor cerebral perfusion caused by hypovolemia, hypoxia or cardiac dysrhythmias. There are many subtle signs that signify changes in mental status; for example, anxiety, lethargy or drowsiness.

Importance of Changes in Mental Status

Changes in mental status must receive considerable weight when forming the clinical picture. A gradual and minor change in mental status (over several days) does not usually signify an immediate life threat. A sudden onset of altered mentation signals a serious abnormality and that a patient belongs in the SICK category.

You may need to ask about prior medical history to determine if an apparently altered mental status is normal for the patient.

The AVPU scale (Alert, responds to Voice, responds to Pain and Unresponsive) is one method of documenting mental status.

Skin Signs

The three skin signs are **color**, **temperature** and **moisture**. Skin color gives you important clues about circulatory and respiratory function.

Check the skin to see if it is pink, pale, cyanotic or flushed. Check the nail beds, palms, mucous membranes of the mouth, or mucous membranes that line the eyelids in persons with darkly pigmented skin.

Color is an indicator of adequate perfusion and circulatory function. Adequate perfusion will meet the needs of the body's cells for oxygen, nutrients and removal of wastes. Cell and organ malfunction and death can result from inadequate perfusion.

Poor color = poor circulation and/or oxygenation = SICK

Skin Color

Pink skin color indicates adequate circulation of blood and oxygen to the peripheral arteries and, therefore, no serious abnormalities in circulatory function.

Paleness can indicate inadequate tissue perfusion or hypovolemic shock and suggests leaning toward the SICK category once other indicators have been evaluated. **Cyanosis** indicates hypoxia and immediately identifies the SICK patient.

Red or flushed skin can be a serious indicator. Causes of redness include fever, environment (such as heat illness) and medications. Often, as in the case of redness, you will have to weigh skin signs and color with other factors in order to form the clinical picture. **Mottled or blotchy** skin can be seen with shock and can suggest a profound circulatory abnormality.

Skin Temperature and Moisture

Assess skin temperature and moisture while checking the radial pulse or by placing the back of your hand against the patient's forehead. Determine if the skin is hot, cool or cold and check for moisture. Hot or warm skin may indicate fever or a heat-related illness. Cool skin may indicate decreased circulation or exposure to cold, anxiety or drug overdose. Cold skin may be caused by extreme exposure to cold.

Cool, clammy skin can indicate poor circulatory function. Overly dry skin may be a sign of dehydration, especially in children and the elderly. Pale, moist skin is a bad sign that suggests an acute and possibly severe abnormality in the patient's circulatory status. Hot, moist skin may indicate high fever or heat exposure.

Body Position

Body position is a reliable indicator of respiratory effort, level of consciousness and ability to compensate for shock. In a medical patient, it will tell you important information about the overall status of the respiratory, circulatory and neurologic systems. Body position is a good barometer to use in distinguishing NOT SICK.

Body Positions

Some body positions can indicate physiological instability. The tripod position is a sign of severe respiratory distress. Any patient who is attempting maximize intake of air due to respiratory distress belongs in the SICK category.

A patient who is supine and cannot sit up without feeling faint may be hypotensive due to internal bleeding, fluid loss or cardiac dysrhythmias. Slumping may be due to a cardiac or neurologic problem.

A relaxed or comfortable patient is less likely to have an immediate, life-threatening problem. A standing patient generally will have intact circulatory and neurologic systems. A patient who is slumped over and unconscious is SICK.

Forming the Clinical Picture

The clinical picture evolves from the moment you approach a patient. Four of the five clinical indicators should be apparent without touching the patient. Begin forming the clinical picture as soon as you enter the scene--body position should be obvious. You should also be able to see if the patient is conscious or unconscious (mental status).

As you get closer, observe the patient's skin color and respirations. These will indicate overall circulatory function. Pale, sweaty skin is a bad sign. Pink, warm and dry skin and sitting comfortably are favorable signs. Labored respirations or shallow respirations are poor signs.

As you get close enough to touch the patient, determine the chief complaint, nature of illness or mechanism of injury, pulse rate and character, skin temperature and moisture. Complete a more detailed mental status assessment.

You should have a decision of SICK or NOT SICK made at this point.

Make a Decision

If even one element of the clinical picture suggests SICK, then classify the patient as SICK and initiate aggressive care. There is no time for a focused history or a detailed physical exam at this time.

A poor showing in one element of the clinical picture may be enough to warrant the SICK classification, for example, severe shortness of breath.

The clinical picture for a SICK patient should be obvious from the first minute or so of patient contact. If not, classify the patient as NOT SICK, administer appropriate care and continue with a more thorough assessment.

Make an initial SICK/NOT SICK decision and manage the patient based on that decision. Too often, further assessment and treatment are brought to a halt by a confusing set of signs and symptoms. When you stall, you delay treatment.

88-year-old female complaining of SOB

You are called to aid an 88-year-old female complaining of shortness of breath. Upon arrival, you see an elderly female sitting on the edge of a kitchen chair, sweaty and anxious, and struggling for breath.

This is the clinical picture of an unstable or critical patient (SICK) because she displays obvious indicators of respiratory distress as seen through respiratory effort, mental status, body position and skin signs. The SICK decision can be made from 15 feet away without even touching the patient.

**If the clinical picture is not clear within about a minute,
select the NOT SICK category.**

SICK or NOT SICK?

A SICK patient needs immediate BLS care and advanced life support (ALS) evaluation and intervention. This patient has a life-threatening condition until proven otherwise. He or she *appears* physiologically unstable from the clinical indicators.

SICK = LIFE THREATENING

A NOT SICK patient does not appear to have a life-threatening condition at this time and is not in need of immediate ALS evaluation and treatment. He or she may have a serious underlying condition, but at this moment, *appears* physiologically stable.

NOT SICK = NO APPARENT LIFE THREATS

If They Look SICK...

In general, people with life-threatening conditions present with impressive clinical pictures. If they look SICK, they are SICK. If they do not look SICK, then they belong in the NOT SICK category until the information you collect says otherwise.

Clinical pictures do change. The NOT SICK patient can receive an ALS evaluation if the BLS providers need advanced assessment capabilities. The important thing is to make the decision and continue acting based on the information you have.

A clinical picture is based on what you can see. A NOT SICK decision does not mean that there is nothing wrong with the patient. It means that, at this point in time, you cannot see an underlying life-threatening condition—the patient appears stable.

You have time to do a more thorough assessment in the field. You will treat the NOT SICK patient based on needs; however, your approach is more thorough and allows you to gather more information.

Form the clinical picture based on your observations and make a decision based on the clinical picture. You do not need to definitively diagnose the problem to be effective in the initial treatment. When things are confusing, provide the basics: airway, breathing and circulation.

Clinical Picture for Trauma

The clinical picture for the trauma patient has the same elements as the clinical picture for the medical patient except mechanism of injury and obvious trauma replace nature of illness and body position.

MOI

A significant **mechanism of injury** may indicate that there are underlying injuries and thus has great impact on the clinical picture. Consider all relevant factors when evaluating mechanism of injury including the type and size of vehicle, the damage sustained by the vehicle, the type of weapon or the height of the fall.

SICK Based on MOI

Mechanism of injury alone can be the key factor in the clinical picture. For example:

You arrive at the scene of a single vehicle MVA with two patients. One is sitting in the driver's seat of a mid-size sedan that hit a utility pole at high speed (estimated 55 mph). The car's windshield is broken and there is major damage to the front end of the car. The steering wheel is bent.

The driver is alert and has a large hematoma on his forehead and complains of moderate shortness of breath and some chest discomfort. The passenger has sustained significant multi-system trauma and is immediately classified as SICK. Both occupants were unrestrained.

In this case, the mechanism of injury weighs heavily in the clinical picture of the driver and passenger. The forces that seriously injured the passenger were also applied to the driver. Although, the other elements do not show adversely for the driver at this time, the clinical picture could change rapidly. The skilled EMS provider appreciates mechanism of injury as a potential indicator of serious internal injury.

Obvious Trauma

Obvious trauma can significantly impact the clinical picture and suggests classification in the SICK category. Strongly consider a SICK decision when faced with multi-systems trauma, head trauma, bilateral femur fractures or chest injuries.

Indecision and Grey Area

Not all clinical pictures are clear. In some situations, you will find that all of the clinical indicators favor the NOT SICK decision, but something unusual in the patient's presentation makes you uncomfortable about choosing NOT SICK.

When you encounter a confusing or "grey area" patient presentation, do not try to diagnose. Go with what you know you have. If the patient is physiologically stable, stay with NOT SICK, offer treatment (e.g. oxygen) and ask some more questions. Your fallback position always is to maintain the ABCs (airway, breathing and circulation).

You may find more information that influences the clinical picture and further increases your index of suspicion. The patient can be NOT SICK but now you are "guarded" for a turn for the worse. You closely monitor the clinical picture for change.

Classify as NOT SICK if the clinical picture is not clear.

The Grey Area

The obviously SICK patients and the obviously NOT SICK patients are not difficult to recognize on the spectrum. There is a "grey area" in between, however. Be aware of this grey area because that is where EMS providers tend to stall.

The goal of SICK/NOT SICK is to avoid delays in treatment. For patients who exist in the grey area, it is acceptable to choose the NOT SICK category while maintaining a high index of suspicion for something to go wrong. For those providers with ALS re-sources, you can request a medic evaluation, if appropriate.

Determining the seriousness of a patient's physiologic condition can be difficult in the grey area, even for the experienced provider. There are times when it is impossible for the EMS provider to truly know if the patient has a life-threatening condition. Choosing one of the two categories may seem arbitrary. The important point is to make a choice based on your observations and provide treatment accordingly.

Delaying the Decision

Delaying the decisions is easy to do when a patient is NOT SICK by clinical indicators, but you suspect that something is wrong. It is common to wait until the paramedics arrive and let them decide. This is not good patient care. Maintain a high index of suspicion, begin treatment and find out more information.

What if the Patient's Condition Changes?

A SICK/NOT SICK decision requires movement down one of two treatment paths. The SICK path puts the EMS team into an "action mode" where aggressive treatment and rapid transport begin immediately or ALS resources follow soon afterward.

The NOT SICK decision leads down the path of a thorough, on-the-scene exam and appropriate treatment. You can switch from a NOT SICK to a SICK course of treatment if the patient's status worsens or you discover new information, for example past medical history that warrants a change.

FAQs

1. Why aren't all patients considered SICK?

You may be tempted to categorize a patient as SICK when uncertain about what is wrong. This approach ignores what years of experience has told us and wastes valuable EMS resources. Efficient EMS systems cannot afford to do this today.

2. What if I make the wrong choice?

SICK/NOT SICK allows you to make a decision based on the information you have at the moment. It can be difficult to diagnose an underlying life-threatening injury or illness. However, you can't go wrong by treating a patient based on what you see clinically.

It is okay to start appropriate BLS level treatment without knowing for sure what is going on.

Classify these patients as NOT SICK (i.e., the clinical picture points to physiologic stability), start oxygen therapy immediately, ask more questions and alert incoming medics rather than wait. Error on the side of providing care.

3. What are mistakes people make with SICK/NOT SICK?

Failing to respond to new information.

You may initially decide that the patient is NOT SICK and later discover, that he or she presents with signs and symptoms that suggest the SICK category. At this point you can quickly move to a SICK response with aggressive treatment and a request for ALS.

Tunnel vision is another factor that can delay decision-making.

By focusing on one sign or symptom you may proceed down the wrong assessment track and fail to see other vital elements of the clinical picture. The skilled provider makes a decision based on the overall clinical picture.

Poor planning or lack of planning.

It is crucial to arrive on the scene with a plan. Do not wait until you arrive to begin thinking about the call.

Summary

SICK/NOT SICK helps you decide who is critically ill and this speeds delivery of care.

Formulate three scenarios while en route.

The five elements of a clinical picture include:

- **Chief complaint**
- **Respirations**
- **Pulse**
- **Mental status**
- **Skin signs**

Nature of illness, body position, mechanism of injury and obvious trauma also play a role in forming the clinical picture.

The **SICK patient appears physiologically unstable** as indicated by inadequacies in: respirations, pulse, mental status, skin signs and body position or evidence of significant mechanism of injury.

The **NOT SICK patient appears physiologically stable** as indicated by adequate respirations, pulse, mental status, skin signs and an appropriate body position.

If the clinical picture is not clear select **NOT SICK, begin necessary treatment and continue with assessment**. NOT SICK does not mean that there is not a serious problem.