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**SICK/NOT SICK**

**Introduction**

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

An EMS provider’s main goal is to rapidly assess who is critically ill and who is not. The SICK/NOT SICK method provides you the tools to assess a patient in less than one minute in most cases. SICK/NOT SICK will help you make good decisions based on proven clinical indicators.

**Practical Skills and Course Objectives**

To receive OTEP credit for this course, a trained skills evaluator must evaluate your ability to perform hands-on practical skills including the following:

1. Patient assessment (medical and trauma)
2. Rapid body scan

**BLS-2013-SICK/NOT SICK** is an online EMS continuing education module for EMS providers. After completing this course you will be able to:

1. Identify the purpose of SICK/NOT SICK.
2. Define SICK/NOT SICK
3. Identify the elements of a clinical picture (medical).
4. Identify the elements of a clinical picture (trauma).
5. Make a SICK/NOT SICK decision.
6. Understand the importance of re-evaluating the patient.

**Key Points**

1. Use SICK/NOT SICK to get EMS providers on the same page and to align them for better patient care and better patient outcomes.
2. Use the Clinical Picture to create a visual to make a SICK/NOT SICK decision.
3. Once you make the SICK/NOT SICK decision, begin treatment and continually reassess.
4. To avoid making a wrong decision, use SICK/NOT SICK to make decisions based on patient indicators.
5. Avoid delaying a decision until paramedics arrive.
6. 
**Terminology**

**Index of Suspicion (IOS)** — The anticipation that certain types of accidents will result in certain types of injuries.

**Mechanism of Injury (MOI)** — The forces of injury and how they were applied to the body.

**Nature of Illness (NOI)** — Circumstances or findings that suggest a possible disease.

**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.

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

**RPM** — An acronym that stands for **Respirations**, **Pulse** and **Mental** status.

**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.

**Skin Signs** — Observable indicators of circulatory status that include skin color, temperature and moisture.
**SICK/NOT SICK DEFINED**

**What is it?**

**SICK/NOT SICK** is a real-world field approach to the initial assessment of sick or injured patients. It identifies the key indicators of physiologic stability and promotes decision making.

⚠️ Make a SICK/NOT SICK decision and avoid delaying treatment.

**About SICK/NOT SICK**

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. The **SICK/NOT SICK** designation provides a standard upon which all EMS providers can base their observations.

Terms that are interchangeable with **SICK/NOT SICK** include “Critical/Noncritical”, “Urgent/Nonurgent” and “Unstable/Stable”.

**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
- Bleeding control
- Updating incoming units
- Rapid extrication
- High flow oxygen therapy (ventilation)
- Treatment for shock
- Requesting advanced life support
- Preparing for transport
What is meant by “Physiologically Unstable?”

You can identify a **SICK** patient by looking at:
- The five clinical indicators: respirations, pulse, mental status, skin signs, body position AND
- Chief Complaint: mechanism of injury(MOI), nature of illness(NOI), or index of suspicion(IOS).

These indicators may be 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 MOI, NOI, IOS.
- Respiratory distress
- Weak or no radial pulse
- Altered mental status
- Poor skin signs
- Inappropriate body position
- Gut feeling (IOS)

**When to Use SICK/NOT SICK**

You should use **SICK/NOT SICK** for every patient contact. Use the principles of **SICK/NOT SICK** on your next call and with every medical, trauma and pediatric patient.

**While en Route**

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

**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.

Consequences of Delaying a Decision

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**. Based solely on the information provided in the dispatch, come up with **three possible scenarios** and **develop a treatment plan**.

**CLINICAL PICTURE**

**What is it?**

The clinical picture is an impression or mental image you form from observing a patient.

**Medical Patients**

The clinical picture for a medical patient has these basic elements:
- Chief Complaint/NOI
• Respiration
• Pulse
• Mental Status
• Skin Signs/Color
• Body Position

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.

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.

View interactive tutorial on respiratory volumes and capacities
getbodysmart.com (external Web site)

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.

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.

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 poor oxygenation = SICK
**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 SICK/NOT SICK.

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.

**Storyline Stop**

The 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” (IOS). This feeling is based on the observation of reliable clinical signs.

SICK/NOT SICK is not a new method of patient assessment. It gives you another tool to use in the field. It’s a way of organizing the information you have gathered. It helps you think systematically about making a decision.

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.

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.

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 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 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.

**Trauma Patients**

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**.

Chief Complaint/MOI

Respirations
Pulse
Mental Status
Skin Signs/Color
Obvious Trauma

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.
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.

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 an older 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.

**MAKE A DECISION**

**The Decision**

If even one element of the clinical picture suggests SICK, then classify the patient as SICK and initiate aggressive and potentially life-saving care. Once you have completed your immediate care, perform the primary assessment and continue any additional care as needed.

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 or delay, you don't treat.

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

**Forming the Clinical Picture**

1. 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).

2. 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.

3. 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 complete mental status assessment. You should have a decision of **SICK** or **NOT SICK** made at this point.

**Treatment**

Treatment should be based on the decision of **SICK/NOT SICK**. Once a decision has been made treatment will follow one of two treatment paths.

**SICK** – Life threatening – Immediate BLS and ALS evaluation

**NOT SICK** – Not life threatening – No immediate ALS evaluation required.

**Reassess**

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.

**Difficult Decisions**

**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.

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.

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 resources, 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 clinical observations and provide treatment accordingly.

COMMON MISTAKES

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 not uncommon 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.

Delaying a decision until paramedics arrive is not good patient care.

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 with the patient.

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. When in doubt err on the side of providing care.

It is crucial to arrive on the scene with a plan. Do not wait until you arrive to begin thinking about the call.
**Failing to Respond to New Information**
You can switch from the **NOT SICK** to the **SICK** course of treatment if the patient’s status worsens or you discover new information, for example past medical history that warrants a change.

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**
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 Documentation**
You must document the following:
- Complete vital signs
- Abnormal physical findings
- Treatment(s) performed
- Reassessment of the patient
- Additional documentation includes:
  - At patient’s side
  - ED contact
  - Transport

**Ignoring Index of Suspicion (IOS) and Mechanism of Injury (MOI)**
Index of Suspicion is used to indicate how seriously a particular injury or illness is being entertained as probable. For example:

Patient: 45 year old man is complaining of chest pain.
Respirations: Normal
Pulse: Radial pulse is present and bounding at 88 beats/min
Skin: Warm and dry.
Mental Status: Conscious and alert.

Upon asking him for his medical history you learn that his father died from a heart attack at 50.

Is your **index of suspicion high or low**?

You should be on high alert for any changes in the patient’s clinical picture. If the patient experiences any significant negative change you should reclassify him as **SICK**.

**MOI**
Mechanism of Injury describes the forces behind the injury and the ways they are applied to the body. MOI alone can determine **SICK/NOT SICK**.

**RESOURCES**

**Recommended Reading**

Summary

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

Formulate three scenarios and a treatment plan while en route.

The five elements of a clinical picture include:

- Chief complaint
- Respiration
- Pulse
- Mental status
- Skin signs

Nature of illness, mechanism of injury, body position, 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/nature of illness/index of suspicion.

The NOT SICK patient appears physiologically stable as indicated by adequate respirations, pulse, mental status, skin signs, appropriate body position AND no significant mechanism of injury/nature of illness/index of suspicion.

If the clinical picture is not clear, select NOT SICK, begin necessary treatment and continue with assessment.

NOT SICK does not mean not ill, not hurt, don’t treat. It means they are stable at this time.

Resources

Recommended Reading