

# **Signs & Symptoms of Illness or Injury and Overview of Body Systems**

## **(Safe Medication Assistance and Administration) TMP**

**Course 140**

**Record 907**

### **Rationale**

In your capacity of working with individuals, you will come to know them very well. In some cases, you will know more about them than anyone else. Your observation on a day to day basis will be critical in determining if something is physically wrong. Developing a keen observational sense will be a very important aspect of recognizing when something goes wrong. In this module/section, you will learn various signs and symptoms of an illness or injury that may require further medical intervention.

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### **I. THE POWER OF OBSERVATION (DEVELOPING OBSERVATION SKILLS)**

In your capacity of working with individuals, you will come to know them very well. In some cases, you will know more about them than anyone else. Your observation on a day to day basis will be critical in determining if something is physically wrong. Developing a keen observational sense will be a very important aspect of recognizing when something goes wrong. In this module/section, you will learn various signs and symptoms of an illness or injury that may require further medical intervention. The first thing you will need to know is what the person is generally like. For instance, what do they look like, how do they smell, sound, feel and react in a normal or healthy state?

Your ability to observe clearly and pass on information in an objective and

detailed manner is your best tool when for signs and symptoms of an illness or injury. You'll use all your senses to describe what is occurring.

A. You will be using your eyes to visually observe or inspect the person or the affected part of their body as well. You'll also observe the person for any pain behavior that may indicate pain.

B. You will use your hearing to identify changes in sounds in your person (i.e. changes in breathing patterns, bowel sounds) as well as listen to what they are telling you with their words.

C. You will use your sense of smell to identify unusual smells, or odors.

D. You will use touch to confirm what your eyes, ears, or your nose tell you.

E. In your position you will become the eyes, ears, and nose for the nurse and physician. Through you, health concerns regarding the person are first recognized. Later your observations and documentation will assist the nurse and physician in gathering significant information to make an accurate diagnosis and develop an appropriate plan of care.

F. While most of the time you will be working with persons who are healthy, some signals may alert you that there is something abnormal about how the person looks or acts. These changes may occur suddenly, or over the course of time.

G. Illness is considered the opposite of health, and can affect not only the body but also the mind. An illness may affect one localized area of the body, or it may also cause problems within a larger body system or affect the entire body. It is your role to monitor the person and contact the house nurse in the event you identify any health concerns. Your observations will assist the person's health care professionals in their assessment of the person's condition. If you have an idea of what to look for when someone shows signs of a change in his or her health pattern you'll be that much further ahead.

## **II. OVERVIEW OF BODY SYSTEMS**

In this section we'll be looking at the body systems and signs or symptoms which suggest there may be a health related concern or problem.

Though we will be describing and discussing health concerns according to body systems, it's important not to lose sight of the fact that the entire body is interrelated and interdependent. For the purposes of this document we will be using the following system classifications:

#### A. Respiratory and Circulatory Systems

These two interrelated body systems include the essential organs of the heart, lungs, and nose. Their primary role is to transfer food and oxygen to cells throughout the body as well as remove waste products.

#### B. Gastrointestinal System

This system is involved in breaking down food so it can be absorbed and used by the body. The principle organs of this system include the mouth, stomach, intestines, liver and pancreas.

#### C. Genitourinary System

The urinary system deals primarily with the filtering of the blood and storage and elimination of urine from the body. The essential organs include the kidneys, ureters, bladder and urethra. The reproductive system is responsible for the continuation of the human race. The essential organs of this system are the testes for males and the ovaries for females.

#### D. Nervous System

The essential organs of this system include the brain, spinal cord, and nerves. This system is primarily responsible for controlling and regulating all the other systems of the body.

#### E. Muscular/Skeletal Systems

The muscles, tendons, cartilage, bones, and connective tissue make up these systems. They function together to provide support, protection, and movement for the body.

#### F. Skin and Sensory Organs

While not really a system, the skin is the largest organ of the body and includes the hair and nails. It provides the protective covering for the body. The eyes, ears, taste buds, and olfactory system (which regulates the sense of smell) are the sensory organs that complete the picture of the body in our categorization.

### **III. SIGNS AND SYMPTOMS OF ILLNESS**

Next, we will look at each of these systems and identify possible signs and symptoms which may indicate a change in someone's health status. This review is not meant to be all encompassing, but rather an introduction to symptoms

which should alert you to continue observing more carefully in gathering further information.

## **A. Respiratory and Circulatory Systems**

As we reviewed, the heart, lung, nose and all the organs which transfer nutrients and oxygen to cells throughout the body are the primary components of the respiratory and circulatory systems.

### **A. Breathing**

Generally breathing is automatic, and a person's respiration is regular, even and noiseless.

Indications to watch for indicating that there may be problems can include:

- Is there a change in the person's breathing patterns? (Generally speaking the usual number or respirations for an average adult is 16-20 breaths per minute. You'd want to note if there is a change in their usual pattern (i.e., Are breaths quick, slow, shallow or labored?).
- Is the person having difficulty breathing? Is it worse when they lie down? Does it get easier if they sit -up?
- Has the person swallowed something that may be blocking the airway?
- Is there a bluish color to their skin or mucous membranes that might indicate they aren't getting enough oxygen?
- Is there an unusual odor to the air being exhaled? Does the breath smell fruity, foul, like alcohol?
- Are there any abdominal breathing sounds like wheezing, gurgling?

### **B. Chest Pain**

- Does the person complain of chest pain? If so, how do they describe it? (dull, sharp, crushing, burning, intermittent, constant) Does it radiate or worsen by moving, or deep breathing?

- Are there signs of a possible 'heart attack'? (Signs may include a crushing or heavy pressure/pain in the center of the chest that may radiate to the neck, jaw, arm, or shoulder and may be accompanied by shortness of breath, indigestion, and sweating. If a person experiences any of these symptoms, call 911.

### C. Colds

- Is the person sneezing or is there any type of discharge from the nose? The color of the discharge can sometimes help to indicate what type of problem the person has. Note if the discharge is: clear, yellow, or green.

- Is there any nasal congestion?

- Is there evidence of sore throat, fever, or coughing?

### D. Coughing

- Is the cough nonproductive or productive? Nonproductive is when it doesn't produce any discharge/matter from the lungs. Productive is when it produces discharge from the lungs.

- Is it a deep or dry hacking cough? Is it worse at night?

- Does the cough have any specific or unique sound?

### E. Fainting

- Was the fainting preceded by any warning signs like dizziness, nausea, paleness, or sweating?

- Did the person experience a rapid loss of consciousness?

- What was the person doing just prior to fainting?

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How long is the person out of unconscious? If the person is not fully recovered within 5 minutes, Call 911.

### F. Sore Throat

- Is there evidence of a persistent sore throat not associated with cold symptoms?
- Do the symptoms persist for several days?
- Is there a recent exposure to others with strep throat?
- Is the person able to get an adequate food and liquid intake?

### G. Wheezing

- Is there a whistling sound or sighing when the person is breathing?

## **2. Gastrointestinal System**

This system is involved in breaking down food so it can be used by the body and it also rids the body of solid waste. It includes: the mouth, stomach, intestinal tract, pancreas, and liver. As with the other systems, an illness with the source in another body system may also cause symptoms that affect the gastrointestinal tract. An example of this is when an illness interferes with a person's ability to have a normal bowel movement, such as with constipation or diarrhea.

Symptoms or signs of the gastrointestinal system to be especially alert for includes the following:

### **A. Abdominal Discomfort**

- Is she or he complaining of pain? Be sure to question the person about the type of pain. Is it sharp, dull, burning or intermittent? Does it shift? is it constant? is it localized to just one area or generalized to a larger area? Also check to see when it occurs or if it improves after eating.
- Is the person's stomach distended (bulging out)?
- Does the abdomen feel hard to the touch or does it cause discomfort if it's touched?

- Do they have an overall feeling of discomfort or malaise?

### B. Appetite

- Is there an increased or decreased desire for food? Is there a total absence of appetite?
- How much food is the person actually eating?
- Are they having any swallowing, chewing or eating problems?
- Has there been a weight change? Usually a change of 5 pounds within a month should be reported to the nurse.

### C. Constipation

Is the person having difficulty passing stools or/and is there an absence of stools?

When the person has a bowel movement, what is the color and consistency of the stool?

### D. Dehydration

Dehydration results when a person's fluid output is greater than their intake.

Some signs to watch

for particularly if someone is experiencing vomiting and/or diarrhea are:

- Does the individual have dry, wrinkled or loose skin and/or a dry, parched tongue or mouth?
- Is there a decrease in the quantity and frequency of urination?

### E. Diarrhea

Diarrhea is generally described as watery, recurrent stools that are accompanied by a sense of

urgency. Many times people confuse a loose stool with diarrhea. Sign and symptoms to watch for

Include:

- Is there an increase in the frequency of going to the bathroom?

- Is the person experiencing stomach cramps, loose and watery bowel movements?

- Is there blood in the stool? Does the stool have an abnormal color or odor?

#### F. Heartburn or Gas

- Does the person have pain in the upper stomach or behind the breastbone?

- Does the pain worsen when eating or lying down?

- Is there an acid-like taste in the mouth, burping, and belching?

#### G. Hemorrhoids

Hemorrhoids are distended veins in the rectum and can be caused by constipation or straining.

Signs to watch for include:

- Is there pain or discomfort when having a bowel movement?

- Is there any blood after the person has had a BM, on the stool, in the toilet or on the toilet paper?

- Is there any swelling or distended external veins noted around the anus?

#### H. Nausea

- Does the individual complain of or show signs of an upset stomach?

- Does he or she have an aversion to food or feel like they are going to throw up?

#### I. Poisoning

- Has the person eaten something that is thought or known to be poisonous or non-edible? If so, immediately contact the poison control and follow their recommendations.).

- Is the person getting sleepy or unconscious? Call 911.

#### J. Stool (feces, bowel movement–B.M.)

- Is there a change in the color, odor, consistency or frequency of bowel

movements?

- Does the stool look black and tarry? This would indicate possible internal bleeding.

- Is the feces blood streaked or reddish?

### K. Vomiting

- Is the person throwing up? How much? How often? What is the appearance?

- Is the person causing him or herself to vomit? For example, putting a spoon or a finger down their throat.

- Is the vomit coming out forcefully? This is known as projectile vomiting which can be associated with head injuries.

- Was the episode preceded by nausea? Did the person just eat something? What?

## **3. Genitourinary System**

The urinary system has the job of regulating the balance of liquids between what a person takes in and what they eliminate.

The average adult has an intake of fluids equal to 3 1/2 quarts and eliminates about the same amount each day. About 1 1/2 quarts are eliminated in urine and the rest through perspiring, breathing, and digesting. The urinary system includes the kidneys, ureters, bladder, and urethra.

The genital system involves the male and female sex organs. It is the system responsible for reproduction. Signs and symptoms of the genitourinary system include the following:

### A. Discharge (drainage)

- Is there a substance coming from a body opening that is not usual? What is the color, consistency, amount, odor, and source?

### B. Itching

- Is the person scratching at his or her groin?

- Is there itching in addition to a discharge?

### C. Painful Urination

- Is the individual experiencing pain or discomfort when urinating? (Is it a burning sensation?).
- Is he or she urinating frequently and in small amounts?

### D. Sexual Organs/Both Men and Women

- Are there any visible lesions, rashes?
- Is there any discharge out of the nipples?
- Is there any report of sexual dysfunction?

### E. Sexual Organs/Men

- Is there a change in the size of a testicle?
- Has someone reported a lump or bump on the testicle?
- Is there swelling of the scrotal area?

### F. Sexual Organs/Women

- Are there changes in the menses including the amount of flow, number of days in the cycle, spotting between periods, cramps, discomfort?
- Are there changes in the breasts including: changes in size, dimpling of tissue, lumps or bumps, complaints of tenderness?

### G. Urine

- Are there any unusual colors, odors, amounts?
- Is there visible blood in the urine?
- Is there discomfort involved in urinating?
- Are there unusual urinary accidents or incontinence?
- Is there difficulty stopping or starting the urine stream?

- Is there a feeling that the bladder wasn't completely emptied.

#### **4. Nervous System**

Here we talk about the brain, spinal cord, and nerves which act as conductors regulating all the other systems.

Relevant signs and symptoms of problems in the nervous system include:

##### A. Delirium

- Is the person experiencing a state of confusion accompanied by agitation and hallucinations (hearing, seeing, smelling, or feeling things that are not observed by others)?

##### B. Dizziness

- Are there signs of unsteadiness?
- When is the person dizzy? For how long?
- Does the person experience the world spinning? When? How long? Under what circumstances?

##### C. Head Aches

- Has the person reported a pain behind their eyes or radiating from the neck?
- Is there evidence of neck stiffness associated with the headache?
- Are headaches prolonged, severe, or recurring? Do they respond to comfort medications? (Tylenol, aspirin, etc.)?

##### D. Head Injuries

- Note the size and configuration of the pupils and their reaction to light. Is one pupil getting progressively larger than the other?
- Is there repeated vomiting and is it projectile vomiting?
- Is there increasing mental confusion or change in the person's level of consciousness?
- Is there evidence or complaints of a headache that is constant, or increases in

intensity and gets worse with movement or straining?

- Does the person have difficulty walking?
- Is there bleeding or clear liquid drainage from the nose or ears?

#### E. Insomnia

- Is there a problem with falling asleep?
- Is sleep disturbed? Is he or she moaning? Restless?

#### F. Level of Consciousness

- Is the person unaware or unresponsive to others and surroundings?
- Is the person oriented to person, place, and time?
- Is he or she alert to surroundings?
- Does the person show a decrease in following commands?
- Do they respond normally to bright lights and loud sounds?

#### G. Paralysis

- Has person lost the ability to move part or all of the body? Was it transient in nature (i.e. did it come and go?)

#### H. Seizures

(Note: There is a separate training module devoted exclusively to epilepsy and seizure control. This list only deals with major signs to watch for.)

- Is there a sudden loss of consciousness followed by rhythmic jerking of the body or a specific body part? Was there a change in the person's level of consciousness? Was there an episode of non-purposeful repetitive activity or verbalizations?
- In the event of a fall caused by the seizure was the person injured?
- Is this the person's first seizure? If it is the first seizure seek immediate medical care.

- Is the seizure associated with a fever?

#### I. Tremors

- Is there shaking of part of the body? Where? How long?

### **5. Musculoskeletal/Skeletal**

The muscles, cartilage, tendons, bones, and connective tissue make up the frame of the body and provide support, protection, and movement of the body.

Signs and symptoms to watch for in the musculoskeletal/skeletal system include:

#### A. Gait/Unusual

- Is there a change in the person's ability to walk? Is the person unsteady, staggering, stumbling?

#### B. Muscle Tone

- Is there shrinkage or obvious wasting away of muscle?
- Are muscles soft, flabby, relaxed?
- Are muscles stiff, tensed?

#### C. Sprains or Fractures (Broken Bones)

It's important to note that an X-ray is often needed to determine whether the person's injury is a sprain or fracture.

- Is there pain or tenderness at the site of the bone or joint?
- Is there swelling or bluish discoloration (bruising) of the skin after a fall/injury?
- Is the person having difficulty walking or are they unable to move the injured body part?
- Is there a false or unnatural movement, shape or positioning of the limb?

### **6. Skin, Eyes, and Ears**

While not really a system, the skin is the largest organ of the body. It provides the protective covering for the other systems and filters disease causing

elements from our environment. The eyes are the delicate organs which orient us to our world through the visual system. The ears connect us to each other through sound and communication.

Major symptoms and signs of problems related to the skin, eyes and ears include the following:

#### A. Abrasions/scrapes

- Is there a break in the continuity of the skin caused by rubbing or scraping? Where is the break in the skin? How did it occur? What is the size? Is it bleeding or oozing?

#### B. Allergic Reactions

Allergic Reactions are acquired hyper sensitivities to a foreign substance. These substances can include: insect bites or stings, ingestion of medications or certain foods, pollens, or contact with other known allergens.

Symptoms to watch for include:

- Is there severe swelling, redness, or rash on the skin?
- Are hives present or is itching of the skin evident?
- Does the person have difficulty breathing or is he or she wheezing?
- Is there tightness in the chest or throat?

A severe allergic reaction can progress to anaphylactic shock, which is a collapse of the circulatory system and is a medical emergency. In such cases, instruct others to call 911 or seek immediate medical care.

#### C. Animal or Human Bites

- Do you see superficial scratches?
- Is there jagged, tearing of the skin?
- Are there any small puncture wounds in the skin?

#### D. Burns

- Is the burned area red and painful (First degree burn/sunburn)?

- Is there a painful blistering of the skin such a burn from hot scalding water or sunburn (Second degree burn)?
- Is the burn severe involving charred or crusted skin which may or may not be painful?
- Did the burn occur from heat or chemicals (lye, acid, etc.)?

#### E. Chills/Cold extremities

- Is the person cold and shivering involuntarily? For how long?
- What color is the skin?
- How is the person dressed/positioned?
- What is the temperature of the surroundings?
- Does the person have a an elevated temperature?

#### F. Ear Ache

- Is there evidence of ear pain such as verbal report, pulling at ears, hitting head by ears, loud screaming?
- Is ear pain accompanied by fever?
- Does the pain last for more than one day?
- Is there discharge or draining from the ear? If so, what is the color, amount, odor of the discharge?

#### G. Edema

- Is there a swelling of the person's hands, feet, face, etc.?
- What is the increase in size?
- Does the swollen area remain indented when you press it with a thumb?

#### H. Eye Appearance/Injuries

- Are pupils constricted (like pin points), fixed and dilated, unequal in size, or not

reacting to light?

- Do eyes appear cloudy, red, pink, watery, or teary?
- Are the eyes glazed, and is person staring off in the distance?
- Is there excessive blinking, squinting, or difficulty in opening the eye?
- Is the person complaining of pain or discomfort?
- Is there any discharge or matting of the eyelids?
- Is there any swelling?

### I. Fever

- Does the person feel hot to the touch?
- Is the temperature elevated? How much?
- Is there any stiffness in the neck or shortness of breath?
- How long has the fever continued?
- Did the fever clear for more than one day and then recur?

Note: Normal oral temperature is 98.6° and a normal rectal temperature is 99.6°. A fever is a reading above the normal temperatures and is usually not harmful. It is a normal reaction to infection or inflammation. Infants and children tend to run higher temperatures when ill than adults do.

### J. Frostbite

- Is the skin red, warm, tender, swollen and itchy? Was it caused by exposure to cold, windy weather?
- Is the skin white, firm, or waxy in appearance or are blisters present?
- Is the person complaining of numbness?

### K. Heat

- Is there an exceptionally warm area on the body? Where?

- Is the person sweating or not?

#### L. Infection

Symptoms of an infection include:

- Pain
- Warmth
- Redness
- Swelling
- A red streak that travels up an extremity toward the heart

#### M. Insect Bites and Stings

See allergic reactions listed above in section B.

#### N. Nosebleed

- Is there blood coming from the nose?
- When is it happening? What is the amount? How long does bleeding continue?

#### O. Perspiration/Excessive

- Is the person sweating more or less than usual?

#### P. Rash

- Is there an eruption on the skin? Where is it? How long has it been there?
- What is the color, height, diameter, composition, and location of the rash? (Red, pustules, etc.)

#### Q. Runny Nose

- Is there mucus/discharge coming from the nose?
- What is the color and consistency of the discharge? Is it clear, yellow, blood streaked, thick, or watery?

### R. Skin Color Changes

- Is the skin a bluish color, especially on the lips and fingertips?
- Is the skin pale, yellow, red, gray, pink, flushed or blotchy?
- Is there a change in the elasticity of the skin?
- Does the skin return to normal when pinched and released?

### S. Vision

- Is there a reported change in the visual field?
- Is the person straining to see things further away or closer?
- Is he or she holding reading materials further away or closer?
- Are there complaints of visual difficulties or blurred vision?

## **IV. REPORTING EMERGENCY AND NON-EMERGENCY HEALTH CONDITIONS**

### A. Reporting Life Threatening Situations

Most of the situations you deal with will consist of monitoring changes that progress or evolve over time. There may be occasions when you will need to handle a health-related emergency. There are no strict rules about what constitutes an emergency, but some conditions will require emergency intervention.

If any of the following occur you should seek immediate medical assistance:

- Bleeding excessively and uncontrollably;
- Breathing that is obstructed or that has stopped;
- Heart stopping;
- Loss of consciousness (unrelated to a known seizure disorder);
- Severe injury from an accident; or

- Uncontrollable behavior that is a danger to the person or others.

Emergency situations are considered to be life threatening. Your role is to seek immediate medical assistance to save someone's life.

### B. Reporting Health Threatening Situations

Other situations may not be considered life threatening but warrant contacting your nurse. Whenever you have questions or concerns regarding someone's health you should contact your house nurse.

- If you answered "yes" to questions posed in the signs and symptoms sections or find that standing order medications and normal comfort measures do not relieve symptoms (such as aspirin and rest relieving a headache), you should contact the nurse.
- Be sure that you have gathered as much information as possible beforehand so you can relay accurate information. Be prepared to explain any interventions you have made and listen carefully for directions from the nurse. Follow up as instructed and continue to watch the person for any changes in the condition.
- Be thorough in examining changes which may suggest an illness or health condition. Remember, a person may not be able to clearly report when there is something wrong.

## **V. PAIN**

### A. Pain Behavior

Individuals will experience and report pain in as many different ways as there are people. Interpreting pain behavior may be especially challenging with people who have developmental disabilities simply because they have a wide variation in both how they experience pain and in their ability to explain what is happening to them. You will need to be especially observant in interpreting behavioral responses and any signs of illness you see due to the complications of unreliable reporting by individuals. Two areas to be aware of are pain thresholds and communicating pain.

### B. Pain Thresholds

Pain is a subjective and personal experience and everyone's threshold for pain is

different. Many people with developmental disabilities (especially those with severe disabilities) do not respond to or express pain as most people would. As a result, an injury or illness may progress significantly before it is identified. Because of this, you need to carefully observe individuals for any signs of illness/injury. Less frequently, some individuals will express pain for something that would not necessarily be painful to most people. Some may interpret this as an attention-seeking behavior, but you will need to be careful not to dismiss such a report simply because it may seem to be behavioral in nature.

### C. Communicating Pain

For some individuals it is no problem to let staff know when they are in pain. Others may feel something different or painful but not know exactly what is happening or not be able to communicate it. Getting to know the people you work with is probably your best tool to understanding pain behavior when it is expressed. Then, trust your intuition. If someone typically is happy and responsive, but on a given day comes home from work grumpy or listless – there may be something physically wrong. Likewise, if someone has a history of aggressive behavior by hitting the wall but all of a sudden starts hitting his head, there could be a medical concern. Just remember, when in doubt probe a little further, ask more questions, and report it to a nurse.