

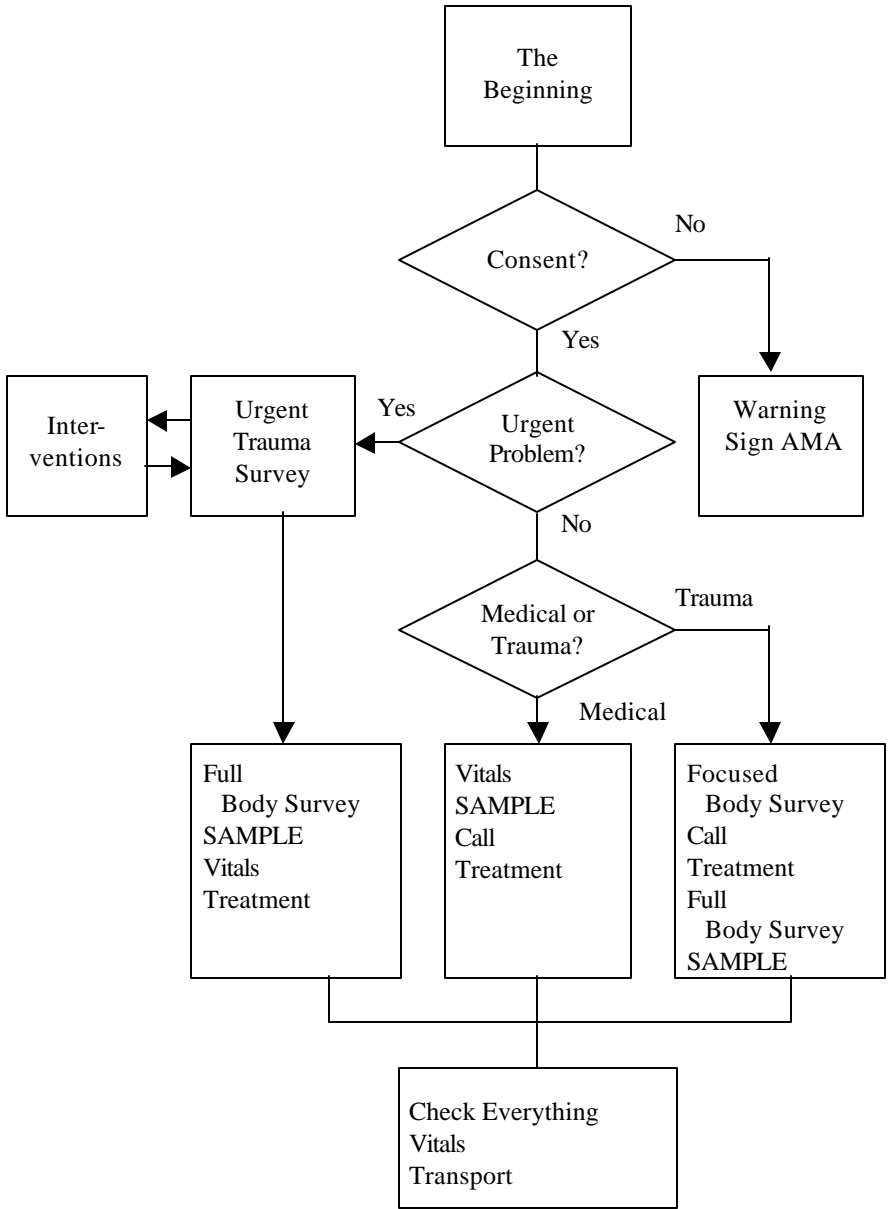


A Guide to Patient Assessment

www.OECTools.org

Patient Assessment

How the parts fit together



A Guide to Patient Assessment ^{*}

In the Beginning	2
To Review... In the Beginning	3
Whole Body Survey	3
To Review...The Whole Body Survey	6
Vital Signs	6
Urgent Body Survey	9
To Review...Urgent Body Survey	10
Medical Questioning	11
OPQRST – What a Pain	13
To Review...Medical Questions	14
Focused Trauma Survey	14
To Review...Focused Trauma Survey	15

My thanks to those who helped with input, review and editing, especially Gigi Tree, Jan Keizer, Steve Donelan and Victor Hernandez.

Please send corrections, comments and notice of use to guide@OECTools.org

The “Guide to Patient Assessment” may be downloaded without charge from <http://www.oectools.org/oc/gpsubject/Guide%20to%20Assessment.zip>

Printed copies of the “Guide to Patient Assessment” may be ordered for \$2.00 each (or \$1.50 each for ten or more) from <http://www.OECTools.org/>

Copyright, 2000
Tahoe Backcountry Ski Patrol

This and all other OECTools documents not otherwise identified, may be freely used, modified and copied for any non-profit purpose as long as the copyright notice is preserved.

-
- This guide is not intended to be a replacement for the chapters in the OEC textbook, but rather to be a primer from which students may begin their learning. It is used in conjunction with the OECTools Assessment Cassette Tape, the OECTools Guided Practice Flip Charts for Assessment and the OEC Textbook and Workbook. (All these OECTools materials are available at <http://www.OECTools.org/>)

A Guide to Patient Assessment

Assessment is THE most important skill for a ski patroller. Ski patrollers assist patients, protecting their life & limb, avoiding their further injury, and transporting them safely and effectively. Good assessment is vital to this.

Do effective assessments right away using this guide. First, learn assessment as a mechanical procedure. Then improve your technique by thoroughly reading the chapters in the OEC textbook. The whole OEC course will answer the “why” of the assessment techniques. In fact, assessment is a skill that uses everything you will learn, both in the OEC course and in years of patrolling experience; a set of techniques intimately coupled to your informed intuition. But, for beginner and old-timer alike, the key is a standard procedure, faithfully followed. You must know the assessment procedures in this guide like you know your own name.

Perfusion is the key to good patient outcomes, and the primary concern of assessment. Perfusion is the delivery of oxygen and nutrients to the body’s organs and tissues. If perfusion is good nothing else really matters. We say this another way: A, B, C ... protect the Airway, assess and assist Breathing and monitor Circulation. Without ABCs, the patient doesn’t have perfusion, and “A patient without perfusion is not a patient for long!!”

In the Beginning

As you near your patient, first make sure that the scene is safe, for you and for the patient. If not, you must make it safe before you can help. Notice if there could be more than one patient and how the problem might have occurred. Once the scene is safe, approach the patient from the front and introduce yourself, “Hi, I am Sue. I am a ski patroller. May I help you?” You need the patient’s permission to help them unless it is a child alone or someone who cannot give consent.

Check the patient’s ABC’s. Feel for a pulse at the patient’s wrist as you speak to them. Watch to see if their breathing is normal. A speaking patient with a normal pulse has good perfusion. Now, take a good look at the patient. Does the patient look well or in a bad way? Your first impression is a very good indication of what is going on.

Decide if this patient can communicate with you. Altered consciousness, extreme pain, fear or lack of a common language can all block accurate communication. Ask the patient, “What happened?” and “What is bothering you?” Acknowledge their response, perhaps with something like “So it hurts right in there?” as you point, but don’t get diverted unless their response is cause for alarm. You must really listen to their response. A response of “I just don’t feel well at all” may be your only indication of a serious internal bleed.

You must ask the “ALWAYS” questions of all patients who can answer.

“Did you hit your head?”

“Were you ever unconscious?”

“Any pain in your back or neck?” (Then check it anyway.)

“Is anything else wrong?”

With these preliminaries out of the way, you can proceed with the assessment.

To Review... In the Beginning

To help a patient, begin this way:

1. Check the scene and make it safe for you and your patient
2. Look for additional patients and see what happened
3. Approach from the front
4. Introduce yourself and tell them you are a patroller
5. Ask for permission to help them
6. See if your patient can communicate with you. If not, you’ll need another approach. (The Urgent Body Survey)
7. Check your patient’s pulse
8. Watch their breathing
9. Notice their general appearance
10. Ask what happened
11. Acknowledge the patient’s answers
12. Ask the “ALWAYS” questions
 - Did you hit your head?
 - Were you ever unconscious?
 - Do you have pain in your back or neck?
 - Check their neck and back if there could have been trauma.
 - Ask if there is there anything else wrong?

Decide what happens next from the information you have gained in the Beginning and the flowchart at the front of this booklet. You are well on the way to helping your patient. Assessment involves the Beginning and five more components:

Whole Body Survey

Vital Signs

Urgent Body Survey

Medical History

Focused Trauma Survey

You will learn each of these five components individually and then combine them into a complete assessment.

Whole Body Survey

The Whole Body Survey is a complete physical examination. Do it to find unknown conditions that could result in patient harm during treatment and transport. Sometimes called the head-to-toe examination or secondary survey, it is usually done while waiting for a sled to arrive. The Whole Body Survey is essential when you cannot understand or believe the patient's answer to "What is wrong?" and "Is anything else wrong?" If the patient can't tell you, you have to find everything. We do the exam in an order that promptly identifies life-threatening conditions:

A, B, C...

Head

Neck, shoulders & back

Chest, abdomen & pelvis

Legs & pedal test

Arms & grip test

Use all your senses during the exam: sight, sound, touch and smell. Your touch during the exam must be firm and continuous, surrounding the area you are examining. Don't "bounce" around or "flutter" and miss nothing. During the exam, maintain eye contact with the patient because you will first see discomfort in the eyes. Be sure to distinguish between fear and pain in the patient's appearance.

Feel for injuries, watch and listen to the patient for discomfort to your touch. Know whether your patient is responsive to discomfort. If not, then you must be especially careful, since you must feel any important injury. An unconscious patient without pain response is a *dire emergency* and may be near death!!

ABC's & Head

Note the patient's breathing and quickly check their pulse again. Look at the patient's face while feeling the shape of the patient's skull. With one hand on the forehead, feel the cervical spine beginning on the skull and going down as far as you comfortably can. With your hands on the sides of the patient's head, use your thumbs to feel the orbit of the eyes and the facial bones. Examine the eyes and nose for abnormal appearance. Trace the shape of the jawbone. Look into the mouth for injury or foreign objects and smell for abnormal odors. Look in and behind the ears for fluid or bruising.

Neck & Back

Look at the anterior neck. Notice any abnormalities especially whether the windpipe is centered and if the neck veins are prominent. Examine the patient's back if you can without excess movement. Otherwise delay this examination till you have help. Feel each vertebra, noting deformity, swelling, tenderness or misalignment. Walk your fingers down the back with one finger on each side of the spinous processes. Be sure to go from the skull all the way down to the bottom of the tailbone.

Chest

Run your hands over the shoulders and grasp the rib cage high under the patient's arms. Press firmly inward; feel the patient's chest expand against your hands as the patient breathes. Slide your hands low on the rib cage; press in again as the patient breathes. With the edge of your hand, press on the sternum in a unisex way. Be aware of the patient's breathing, is it normal or labored?

Abdomen

Palpate the four quadrants of the abdomen, divided by the navel. Look for tenderness or unusual rigidity. Stack the fingers of your two hands on one another. Point the fingers up for the upper quadrants and down for the lower ones. Palpate just below the ribs and just above the pubis. Press firmly into the belly with a circular motion pressing as far up (or down) as you comfortably can.

Pelvis

Place your hands on the edges of the pelvic girdle, just above the hip joint. Press firmly toward the midline and then press back. Notice abnormal motion, discomfort or grinding feeling.

Legs

Now palpate legs and arms. When you find an abnormality or patient complaint, check the rest of the limb. Go to the foot or hand; then palpate back to the injury site. Begin by palpating one leg. Place one hand over the hip joint and one hand high on the inside of the leg. Palpate down the leg maintaining continuous contact and touching all around the leg. Use a strong, offsetting pressure, especially on the upper leg. As you reach the knee, feel the kneecap move. Continue down the leg, being aware of the fibula, deeply buried in the calf except just below the knee and on the outside of the ankle. Repeat on the other leg. Have the patient press down with both feet against your hands, then pull up their toes against your hands. Ask if they can feel both feet, wiggle their toes and if one foot is much colder than the other.

Shoulders & Arms

Return to the shoulders. Place both thumbs in the notch where the clavicles meet the sternum. Move out the clavicles, maintaining continuous contact all the way to the point of the shoulder. Now examine one arm, surrounding the arm with your hands and feeling continuously down the arm and across the hand. Repeat on the other arm. Ask the patient to grip your fingers with both hands and squeeze them hard.

Vitals & Review

Take a counted pulse and (while continuing to hold the patient's wrist) counted respirations and record them. Notice the patient's skin signs and review their level of responsiveness. Be sure you have asked the medical history questions

and finally, re-check any identified injury sites checking for any change in appearance or patient discomfort and checking the effectiveness of any splints or bandages you have applied.

To Review...The Whole Body Survey

Use a Whole Body Survey after you have dealt with life threatening conditions and symptoms reported by the patient but before you move or transport the patient. Always use a Whole Body Survey for patients with whom you cannot communicate. Use all your senses and use a firm touch.

Check these things in the whole body survey:

1. The character of the pulse and respirations
2. Skull shape
3. Cervical spine
4. Eyes, nose and facial bones
5. Mouth – injury & foreign objects
6. Ears - in & behind
7. Anterior neck
8. Back
9. Chest - laterally & sternum
10. Four abdominal quadrants
11. Pelvis – laterally & back
12. Legs & pedal test
13. Shoulders
14. Arms & grip test
15. Counted vital signs
16. Injury review

You can now be confident that you have discovered your patient problems and are prepared to give them good care.

Vital Signs

Vital signs are your best indication of the well being of your patient. You must measure vital signs confidently, and faithfully incorporate them into your assessment technique. The five vital signs are:

level of responsiveness
pulse
respirations
skin signs
blood pressure.

You must measure vital signs repeatedly. **Deterioration of vital signs requires immediate transfer to definitive care.**

Level of Responsiveness

Level of responsiveness (LOR) reliably indicates the well being of the brain. It reflects both trauma to the brain and the quality of perfusion. Evaluation of altered responsiveness is a key part of assessment. Watch for changes in LOR during treatment of the patient. **Decreasing LOR is an ominous sign requiring urgent transport.**

Evaluate LOR in two ways, the AVPU scale and orientation. AVPU separates responsive and non-responsive patients. The categories are:

- A – Alert. Communicates appropriately
- V – Verbal. Responds to verbal stimuli
- P – Pain. Responds to painful stimuli
- U – Unresponsive. Does not respond.

Evaluate patients for orientation if they have purposeful response to verbal stimuli but not clear communication. Orientation indicates the extent of memory loss. Long-term memory loss is more serious than loss of recent events.

Check orientation by asking:

- Person – “What’s your name?”
- Place – “Do you know where you are?”
- Time – “Do you know the day & time?”
- Event – “What happened?”

Report which of these questions the patient can answer. For example, “the patient is oriented as to person and place but not time or event.” You want to know trends, so keep asking these questions. We often tell patients three colors in order and ask for them back in 3-5 minutes to monitor short term memory.

Pulse

The strength, rate and regularity of pulse reliably indicate the well being of the heart. An abnormal pulse reflects both cardiac impairment and the quality of perfusion. Continuous evaluation and monitoring of pulse is essential to good assessment and patient treatment. Pulse rates of 60-80 are normal in most adults though individuals vary. **Increasing pulse rate is an indication of shock. You ignore it to your patient’s peril.**

You will frequently check the radial and carotid pulses. When you first approach the patient, you check the radial pulse. During the Urgent Body Survey, you

simultaneously check the radial and carotid pulses. Do all pulse checks using multiple fingers. Check for presence of pulse for five to ten seconds. Count pulse for fifteen seconds after locating it.

You most often take the radial pulse, found on the thumb side of the wrist. The radial pulse may be absent in patients in shock. You use this fact during the Urgent Body Survey when you take the radial and carotid pulses simultaneously. Remember that healthy people (typically women) with very low blood pressures may also lack a detectable radial pulse, especially in the cold.

Find the carotid pulse on the side of the neck. Locate it by resting your fingers on the Adam's apple, and moving your fingers away from the neck until they drop in the notch at the edge of the trachea. Do not reach across the neck, because it has the appearance of choking the patient. Take a carotid pulse when a radial pulse is not available or when you are making an urgent determination of whether the patient has any pulse.

For infants, use the brachial pulse, raising the infant's arm above their head and palpating the inside of the upper arm midway between elbow and shoulder. Remember that normal juvenile and especially infant pulses are much more rapid than adults. You will learn other pulses that are used to verify circulation in the leg, but they are not used in basic assessment.

Respirations

The strength, depth, rate and rhythm of respirations reliably indicates the well being of the lungs and the general state of perfusion. Continuous evaluation and monitoring is essential. No one can breathe naturally while aware of their breathing. So measure respirations without the patient's awareness. Appear to continue to measure pulse while resting the back of your hand against the patient so you can feel the patient's rib cage or abdominal expansion.

You must be aware of the patient's respirations throughout your treatment. Respirations that are shallow, noisy, labored or outside the range of 12-25 are abnormal and often not effective. If respirations are not effective or if respiratory rate rises above 30 or drops below ten, you will have to mechanically assist the patient's breathing.

Skin Signs

Skin signs are an extremely reliable indication of patient health. Examine the temperature, color and moisture of the skin. Exposed skin in an outdoor environment is not reliable. However, you can reach inside the wrist or collar of the jacket to feel the warmth and moisture of the skin. Expect to find skin pink, warm and moist. Gray or bluish skin tone coupled with coolness or excess moisture is a sign of poor perfusion. Hot, red, dry skin is most often a sign of infection or heat illness.

Blood Pressure

Take blood pressure for critical patients once they are indoors. Take blood pressure using a blood pressure cuff and either feeling the radial pulse or listening with a stethoscope. When feeling the pulse, you can only determine the systolic (maximum) pressure. Write this blood pressure as 120/P. With a stethoscope, you can measure both the maximum (systolic) and resting (diastolic) pressures but can only do this in a relatively quiet environment. Write this pressure as 120/80 where the upper number is where you start hearing sounds and the lower is where the sounds disappear.

Take blood pressure with the following steps:

1. Apply the cuff around the upper arm, one inch above elbow
2. Do not apply the cuff over bulky clothing
3. The cuff should fit snugly with tubing clear
4. Place the arrow on the cuff over the artery
5. Place the stethoscope over the artery in the elbow.
6. Keep the arm at the level of the heart
7. Find the radial pulse
8. Inflate the cuff 20 mm over loss of pulse
9. Deflate the cuff slowly
10. Listen for first and last sounds or
11. Feel for the first pulse

Adult blood pressures vary widely. Normal blood pressure is 120/80, but may range as low as 90/60 for some healthy individuals. Blood pressures above 140/90 are usually treated medically. As with other vitals, you are concerned with trends. Record blood pressure and watch it over time. **Decreasing pulse pressure (the difference between the two numbers) is the earliest indicator of shock.** For this reason, use a stethoscope whenever you can. Increasing pulse and dropping blood pressure are later signs of shock.

Urgent Body Survey

The Urgent Body Survey is your best life saving tool. When a patient has:

- altered consciousness
- poor general impression
- abnormal or unstable vitals
- Inability to communicate
- Severe mechanism of injury

you must immediately do an Urgent Body Survey in order to find and intervene in life-threatening conditions. Then you radio for help and transportation based your survey. Sometimes this is called the Primary Survey. During the survey, you locate, expose and deal *only with immediate threats to life and limb*. When you find a problem, you quickly do what you can to help and then continue the

survey. Some of the techniques are the same as for the Whole Body Survey but are done very rapidly.

To begin, determine the gross level of responsiveness. “Hey buddy, are you ok?” Then simultaneously take the carotid (neck) and radial (wrist) pulses for about five beats. Rest your hand on the upper chest and feel two or three respirations. Feel the patient’s skin in a protected area and evaluate the skin signs. Feel the patient’s head shape, and with one hand on the forehead, palpate the cervical spine. Check the anterior neck for trachea out of place and abnormal jugular veins.

Feel chest expansion laterally. Palpate the abdominal quadrants. Palpate the pelvis. Palpate each leg to the knee. Unless you are committed to backboard the patient, you must examine the spine to decide if a backboard is required. Then make your radio call. Count pulse and respirations for fifteen seconds each and record them. **That’s it.**

To Review...Urgent Body Survey

When your patient has:

- altered responsiveness
- poor general impression
- abnormal or unstable vitals
- inability to communicate
- severe mechanism of injury

you must immediately do an Urgent Body Survey. Rapidly check:

1. Carotid & radial pulse
2. Respirations
3. Skin signs
4. Head shape
5. Cervical spine
6. Anterior neck
7. Chest expansion
8. Abdominal quadrants
9. Pelvis
10. Femurs
11. Back (unless already committed to backboard)
12. Make radio call
13. Count & record vitals.

In about a minute, you have evaluated the patient’s vital systems and life-threatening injuries and requested the equipment and transportation you need. You’ve minimized the time until this patient receives the hospital care they urgently need. **Do it right, save a life; every minute is golden.**

Medical Questioning

We do medical questioning as a part of almost every patient assessment, but especially for those patients who appear to be ill rather than victims of trauma. For medical patients, we use the same basic tools as for trauma, but with a different emphasis. The purpose of medical questions is to determine if a known medical condition is causing or complicating the current complaint and whether we or the patient have any means to respond to it. We also identify conditions that could complicate subsequent treatment and pass that information to EMS.

For a medical patient, begin with a first impression and asking what is wrong. Quickly get vital signs. If the patient's appearance requires, do an Urgent Body Survey. That done, ask the medical question, which hang on the acronyms SAMPLE and OPQRST. These questions are time-tested by emergency care providers. Follow them faithfully and you will provide your patients the best of care.

Basic medical questioning follows the acronym SAMPLE:

S – signs & symptoms

A – allergies

M – medicines

P – Prior medical conditions

L – last oral intake

E – events leading to current complaint

S- Signs & Symptoms

Determine the patient's signs by the first impression, taking vitals and, if necessary, the Urgent Body Survey. Then ask the patient, "What's wrong?" Always remember to ask "Has this ever happened before?" and "Is there anything else wrong?" Patients will describe their ailment in loving detail and never mention that it has been happening daily for months. "Point to exactly where it hurts" is another good question to remember. The OPQRST questions should be used to follow-up any report of pain. They are described after SAMPLE.

A - Allergies

Ask about allergies because:

the current complaint might involve allergy or asthma

so that you can be prepared for any allergic reaction

to identify drug allergies that might complicate subsequent treatment.

You want to know if this patient uses and is carrying an inhaler for asthma.

M – Medicines

This question often identifies medical conditions. Ask about four kinds of "medicines"

Prescription
Over-the-counter
Alcohol
Recreational drugs

For both prescription and over-the-counter drugs, ask:

“Are you taking any medicines?”
“Are you supposed to be taking any others?”
“What are you taking that for?”
“Did you take it today?”
“Do you have it with you?”

These questions may identify chronic medical conditions. The current complaint may require taking medication, possibly with your assistance.

Alcohol and recreational drug evaluation helps explain altered behavior and vital signs and may help identify consequences of chronic alcohol or drug abuse. The evaluation may also identify immediate threats to life from alcohol poisoning and drug overdoses. It is difficult to get honest answers to questions about recreational drugs and alcohol (especially in under-age users.) Sensitive and persistent questioning and assuring confidentiality are often necessary.

P - Prior Medical Conditions

You need to find the truth of things. Try questions like “Do you have diabetes, heart problems, asthma, seizures or any other medical problems I need to know about?” or “Do you see a doctor regularly for anything?” Many persons with severe medical conditions wear a medic-alert bracelet or necklace. Remember that children with chronic medical conditions are often taught that they are not sick, just kids that need to take this pill or shot every day. You need to adjust your questions accordingly.

P also stands for pregnancy. Ask about pregnancy for women of childbearing age, especially if they are experiencing abdominal complaints, major trauma or severe medical problems. EMS must receive pregnancy information if the patient loses consciousness. Any woman with abdominal complaints must be assumed pregnant till proven otherwise. Privacy is especially important when asking these questions of young teens.

L – Last Oral Intake

Asking about recent meals can point to medical problems. “Why haven’t you eaten since Friday noon?” Food patterns may also complicate diabetes, and impact people with blood sugar regulation problems and extremely thin people. This question also looks for complications from dehydration, a frequent mountain problem. Coffee and beer do not hydration make.

E – Events Leading to Being Here

This question works three ways. It evaluates level of responsiveness, it may reveal symptoms not otherwise reported, and it provides insight into the current complaint over time.

If you use the SAMPLE questions with intelligence and care, you will get the information you need to help your patient.

OPQRST – What a Pain

Your patients will often experience pain and tell you about it. Response to pain ranges from stoic to hysteria. “It hurts!” doesn’t give you much to go on. The questions of OPQRST let us evaluate the patient’s complaint and respond appropriately.

- O - Onset
- P - Provokes
- Q - Quality
- R -Radiates
- S - Strength
- T – Time questions

O - Onset

Ask “When did this start to happen?” Is the problem related to today’s skiing or to a pre-existing condition.

P - Provokes

“Does anything make it worse?” “Does anything make it better?” For example, exertion may make chest pain worst and sitting down may relieve the pain.

Q – Quality

Sharp, dull, shooting and crushing are typical responses. Ailments have unique qualities. Ask this question without suggesting the answer. The patient is likely to agree with your example rather than giving the most informative answer.

R -Radiates

“Does the pain radiate, shoot or move to anywhere else?” Identify abdominal and cardiac pain that often radiates to the jaw, shoulder or arm.

S - Strength

Learn how severe this problem is. Ask, “If ten is the worst pain you have ever felt, what is this pain right now?” Also ask, “What was that worst pain?” If your patient has had a difficult, non-medicated childbirth, she may have a different pain scale than you do.

T - Time questions

Ask if these symptoms have occurred before. Ask if the pain is getting worse, moderating or staying the same. Ask if it comes and goes or is constant. Has the patient had other episodes like this pain.

With these questions, you are better equipped to understand the patient's symptoms. For example, dull back pain that has occurred periodically for years is very different than shooting back pain which began only after a severe fall.

To Review...Medical Questions

Medical questioning is a part of almost every patient treatment, but especially important for patients who appear to be ill. The basic medical questioning follows the acronym SAMPLE.

S – signs & symptoms

A – allergies

M – medicines

P – Prior medical conditions

L – last oral intake

E – events leading to current condition

When patients say “it hurts,” learn more with the OPQRST questions.

O - Onset

P - Provokes

Q - Quality

R -Radiates

S - Strength

T - Time questions

With these questions, you are equipped to understand the patient's signs and symptoms whether they are medical in nature or subsequent to trauma.

Focused Trauma Survey

When your patient does not require an Urgent Body Survey and passes the “Always” questions of the Beginning, use the Focused Trauma Survey. Speed treatment and be less invasive than for major problems. Focus on the symptoms reported by the patient. Complete the Beginning questions and vitals check and ask “What’s the problem?” Ask, “Point with one finger to where the problem is.” Observe and palpate the injury site to identify angulation, tenderness and swelling? Also ask:

- “How & when did it happen?”
- “How bad is it?”
- “Did you hear a pop?”
- “Does it move ok?”

Depending on the reported problem, the weather, the patient’s clothing, etc. you may expose the injury site on the hill or wait till you get inside. In making that decision, ask if the patient feels bleeding or warmth, stickiness or wetness around the injury.

Then, ask “Does anything else hurt?” and repeat the Focused Trauma Survey for each reported injury. Patients with multiple injuries, especially injuries to multiple limbs or to the head, neck or trunk, should be treated as major trauma patients.

To Review...Focused Trauma Survey

Use a Focused Trauma Survey on the hill when your patient has:

- Good general impression
- Stable vitals
- No spinal signs or symptoms
- Is alert
- Communicates clearly
- Had a minimal mechanism of injury

After clearing the patient for head trauma and spinal complaint, focus on reported symptoms. Evaluate the injury by:

1. “What’s the problem?”
2. “Point with one finger to where the problem is.”
3. Palpating for angulation, tenderness and swelling
4. “How & when did it happen?”
5. “How bad is it?”
6. “Did you hear a pop?”
7. “Does it move ok?”
8. Exposing the injury if required for effective evaluation.
9. Ask what else is wrong, and repeat the exam for each complaint.

With the Focused Trauma Survey, you can safely identify and treat minor injuries in a rapid and non-invasive way, ensuring your patient’s comfort and well being.