

A Guide to Patient Assessment - May 2009

Assessment is THE most important skill for a ski patroller. Do a good assessment and you will recognize a patient's problems, provide appropriate care, avoid further injury, and transport the patient to the next level of care quickly and safely. This guide lets you do great assessments right away. Use it and you'll know what to DO.

To do great assessments:

1. Learn this assessment as a mechanical procedure.

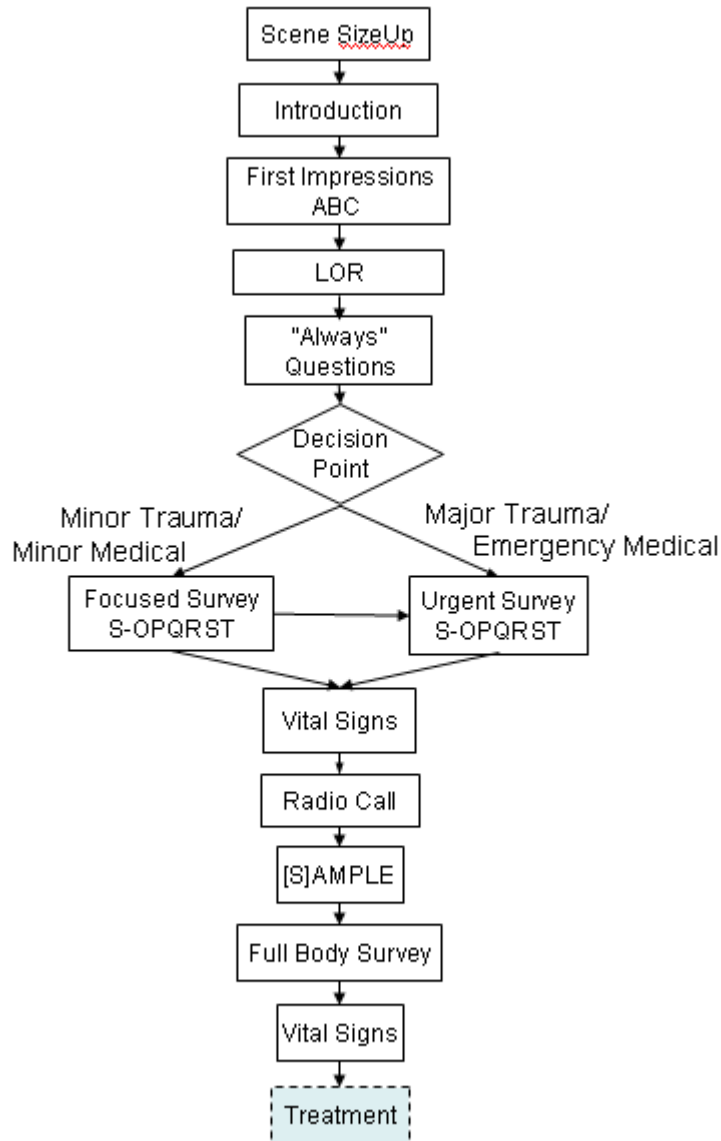
You must know the procedures in this guide like you know your own name. Don't worry about "why," just learn the steps

2. Improve your technique by thoroughly reading the chapters in the OEC textbook.

Once the assessment is second nature, the textbook will give you the "why" knowledge.

Truly effective assessment requires integrating everything you will learn in this OEC course with your "on the hill" experiences. As a new patroller, without that experience, the danger is Complacency. Assume your patient may have serious injuries that aren't evident. Err on the side of CAUTION.

The diagram below gives the COMPLETE assessment flow that is to be committed to memory. The steps of this flow are ALWAYS done, regardless of whether the injury is simple or severe. Memorize the steps in the Flow – create a mnemonic that will work for you. Practice saying the steps in sequence to yourself in the car. Do whatever you need to in order to be able to spout the sequence at a moment's notice.



Let's briefly define these steps, and then we will explain them in more detail.

Scene Size-Up – look over the scene, assure the scene is safe for you and your patient, protect the scene (crossed skis, use bystanders, etc), put on glove protection.

Introduction – Introduce yourself, and ask your patient for permission to help.

First Impressions / ABC – Take in the patient's general appearance and assess Mechanism of Injury. Do a quick evaluation of airway, respiration (breathing & respiratory distress), and circulation (pulse & bleeding). If there are issues, address them NOW. If CPR or rescue breathing is required, make a call to that affect, and start.

LOR – Ask the LORs questions. Can you interact with the person? Can you understand them?

Always questions – Find out if the person may have injured their head or back, lost consciousness, or has known medical problems

Decision Point – Based on input and instinct, move to either an urgent or focused survey. Always consider “Do you have reason to suspect something more major than it appears”.

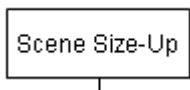
Urgent Survey – quickly and systematically assess critical parts of the body

Focused Survey – isolate and assess major and secondary (if any) complaints

- Vital Signs – measure the patient’s pulse rate and respiration rate
- Radio Call – where you are, what you have, and what you need
- SAMPLE - obtain a patient medical history
- Full Survey –complete head to toe examination so you miss nothing
- Vital Signs – take a second set of vitals

Commit this flow to memory. It is absolutely essential. Stress and distractions can throw the best patrollers off track. Depend on your mechanical knowledge of the assessment flow. ALWAYS follow this flow, no matter how simple or how complex the problem appears. Learn each step and its checklist, in sequence. Commit them to memory. Some areas suggest you verbalize all steps. Refer to Appendix A for an example from Sugar Bowl.

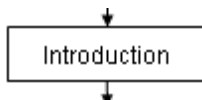
SCENE SIZE-UP



- CHECKLIST**
1. Check Scene Safety; Make scene safe
 2. Check for other patients & witnesses
 3. Consider Mechanism of Injury (MOI)
 4. Apply Body Substance Isolation (BSI)

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 approach. Put a pair of crossed skis uphill in the snow, to make the scene obvious. Look for other patients and witnesses, and make sure they stay around. Look to see how the accident may have occurred and how bad it might be (MOI). Be wary of “BIG” – big fall, big height, big impact, big “yard sale”. Put on gloves as a minimum, and consider other precautions if called for.

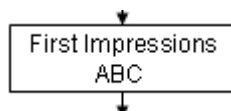
INTRODUCTION



- CHECKLIST**
1. Introduce yourself
 2. Ask permission to assist

Approach the patient from the front, introduce yourself, and ask if you might help them. “Hi, I am Sue. I am a ski patroller. May I help you?”. This is a necessary step. A fully responsible & alert adult can refuse your help.

FIRST IMPRESSIONS / ABCs



- CHECKLIST**
1. Take in general appearance
 2. Check the patient’s airway. Any issues?
 3. Look, listen, and feel (~10 sec) for pulse and respiration; if necessary, go to CPR fundamentals
 4. Assess if breathing distress, or signs of severe bleeding (internal or external)
 5. “Go to Skin” on primary complaint, control bleeding, if any.

This step is very important. You must determine if there is any immediate danger to the patient’s life. If there is, you must address it at this point, and move no further along the Flow.

As you approach, take in the patient’s General Appearance. Normal skin is warm, pink, and dry. Is the person sweating, hot, cold, flushed, bluish? If uncertain, look at the inside of their lip for color. Skin signs are a very good indicator of the state of patient health.

As a first action, check that the patient “has an airway” and can maintain it on their own. If “yes”, then “Look, Listen and Feel” for 10 seconds for respiration (watch chest (woman) or abdomen (man)). Is the breathing normal or is it labored, raspy, shallow, or otherwise compromised? Next, check for a radial pulse for about five beats. Is it strong and regular, or is it irregular, weak, thready...?

If there is lack of breathing and/or pulse, move directly into your CPR preliminaries*.

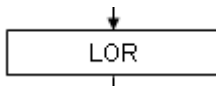
Check the clothing for any signs of pooling blood. If found, immediately find the cause.

If there are any ABC issues, you need to assess what might be causing them, and move to address them. Go no further until this has happened. You might go no further than maintaining the patient’s airway. You might have to radio for help now.

Assuming no major ABC issue, Next ask, “*Tell me what happened, Tell me what hurts*”. If they say, or point, that it hurts somewhere, expose the body part = “SKIN TO WIN”. If there is anything more than minor bleeding or oozing, control and bandage at this point,

** It should be noted that a lot of the information in Ch. 11. Cardiovascular Emergencies, is out of date. Students should follow the protocols taught in their CPR/AED-FPR class.*

LEVEL OF RESPONSE



CHECKLIST

1. Ask LORs: What is your name?
Where are you?
What time is it?
What happened?
2. Can they communicate?

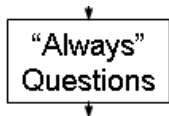
Ask the Level of Response questions: What is your name? Where are you? What time is it? What happened? (Person/Place/Time/Event). Determine if you can effectively communicate, and decide if you can trust the answers. Altered consciousness, extreme pain, fear or lack of a common language can all block accurate communication.

Sometimes, a response of “I just don’t feel well at all” may be your only indication of something serious. At other times, there may be no sign at all of anything seriously wrong, other than an altered level of responsiveness. Watch carefully for changes in responsiveness during your assessment and treatment.

Decreasing responsiveness is an ominous sign requiring urgent transport.

When you have finished this step, you should have a pretty good “gut feeling” about whether you are looking at a minor or major situation.

ALWAYS QUESTIONS



CHECKLIST

Ask the following questions

1. “Did you hit your head?” If yes, ask if person has had a previous concussion.
2. “Did you hit your back?”
3. “Does your neck hurt?”
4. “Does your back hurt?”
5. “Did you ever lose consciousness?”
6. “Any medical conditions?” - HEAD

The first 5 questions work to discover the possibility of trauma to the patients’ head or back.

Why ask about previous concussions? A concussion is a brain injury caused by a shaking of the brain inside the skull, which temporarily prevents the brain from working normally. It is not always easy to know if

someone has a concussion. Not everyone who has a concussion passes out. **A person who might have a concussion should immediately stop skiing.** Occasionally a person who has a more serious concussion develops new symptoms over time. Most important, the effect of multiple concussions over time is significant and can result in long-term neurologic and functional deficits.

The 6th question lets you learn about known medical conditions that could quickly create a serious, and deteriorating, situation. HEAD – stands for Heart, (disease, high blood pressure), Epilepsy, Asthma, Diabetes. See or ask if the patient is wearing a medic alert tag or bracelet.

DECISION POINT



CHECKLIST

Go to Urgent Survey if ANY are true

1. Can't communicate, be understood, or be believed
2. Any hits on "Always"
3. Altered consciousness (less than A&Ox4)
4. Appearance is not normal
5. Anything "BIG" on MOI
6. Your instinct tells you to

The default is an Urgent Body survey.

"BIG" on MOI includes any injuries to or issues with the Body's "kill zone" – head, neck, torso, legs above knee.

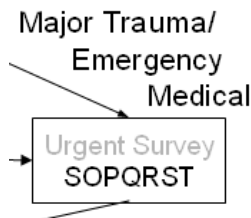
If you go to a Focused Survey and find something serious, switch to the Urgent Body Survey – starting at the beginning. Once an Urgent Body Survey is started, it must be completed. You do not want to miss anything.

MAJOR TRAUMA / EMERGENCY MEDICAL



CHECKLIST

1. Head - Feel shape, check ears for fluid (look at gloves)
2. Anterior neck – Is trachea out of place or jugular veins abnormal.
3. Spine - DO NOT roll a patient with a potential neck or back injury; at least try for Cervical Spine
4. Shoulders - Squeeze one then the other, move along clavicles
5. Chest – Resist expansion; High & Low; Sternum
6. Abdominal quadrants – check all 4
7. Pelvis - Palpate in first and then palpate down
8. Each Leg - Palpate from hip to the knee
9. Peripheral CMS



CHECKLIST

- S – Symptom
- O – Onset
- P - Provoke
- Q - Quality
- R - Radiate
- S - Severity
- T - Time



Head – quick palpation for tenderness, swelling, or bruising. Look into the ears for CSF. That is it. No eyes, mouth, detailed facial bones.

Neck – check for trachea mis-alignment and jugular swelling

Spine – from cervical to coccyx, be firm (for first half of class, we dig in the snow and assess the full spine).

Shoulders – grab the shoulders and squeeze, at the same time pressing against clavicles with thumbs

Chest – resist high, resist low, edge of hand on sternum – same as full body

Abdomen – four quadrants – same as full body

Pelvis - press in, press down – same as full body

Thighs – one leg at a time, palpate from groin to knee, firmly.

=====

For any injury found, isolate, expose, and palpate the injury site for any sign of deformity, bleeding, tenderness, swelling, or the like. If you find a problem that is a danger to life or limb, quickly do what you can to help and then continue the survey. Watch and listen to the patient for discomfort to your touch. For more minor issues, leave for treatment.

This exam should take no more than a minute or so.

If you find or suspect spinal or major bone injuries, check circulation, motion, and sensation (CMS) on extremities

S-OPQRST ---

Except in cases of medical issues, a full recitation of OPQRST is not needed. Ask only the questions that will add to your knowledge, for example – when did it start (was it there before you fell?), how bad is it, or does moving make it worse?

S - Symptoms

“Where does it hurt?” or “How does it feel?” are questions about pain symptoms. A response of “It hurts!” doesn’t give you much to go on. Follow up with a set of questions, if needed, to judge the type and level of pain, if a known medical condition might be causing or complicating the current complaint, or if drug affects are involved.

O - Onset

“How and when did the pain start to happen?” What initially caused it? Is the pain from today, or has it always been there?

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. Moving the wrist or arm a certain way may provoke the pain.

Q – Quality

Sharp, dull, shooting and crushing are typical responses. Ailments have unique qualities. Don’t give examples, as the patient is likely to agree with whatever you use.

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 - Severity

“If ten is the worst pain you have ever felt, what is this pain right now?” Ask, “What was that worst pain?” to calibrate. Any prior trauma may alter their scale versus yours.

T - Time questions

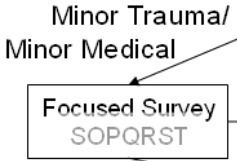
“Have these symptoms occurred before?”. “Is the pain getting worse, moderating or staying the same?” “Does it come and go, or is constant

The answers will help you decide if you dealing with something new, or old, and the urgency with which it should be dealt with.

When complete you move on to the next step – Vital Signs

MINOR TRAUMA / MINOR MEDICAL


Minor Trauma/
Minor Medical



CHECKLIST

1. Clear spine if accessible (~C1- C7 as minimum)
2. Point with one finger to where it hurts?
3. Expose/Palpate
4. CMS
5. Repeat (from step 2)

Minor Trauma/
Minor Medical



CHECKLIST

S – Symptom
O – Onset
P - Provoke
Q - Quality
R - Radiate
S - Severity
T - Time

If you feel safe in ruling out an Urgent Body Survey, focus on the symptoms reported by the patient.


First, it is always good practice to palpate the spine (at least C1-C7) regardless of what answers you got to the Always questions.

Ask the patient “*Point with one finger to where the problem is.*” Expose and palpate the injury site for any sign of deformity, bleeding, tenderness, swelling, or the like. If something is found, go to the distal end and work back to the injury site, to find out if there are multiple injuries. And, you **MUST** test CMS distal to the injury.

After you have uncovered and palpated the site of the first (and hopefully, chief) complaint, do NOT stop. Ask “Does anything else hurt?”. If it does, repeat the same procedure – point, palpate, CMS. And do it again, and again until the patient says nothing more hurts.

When complete you move on to the next step – Vital Signs

VITAL SIGNS



CHECKLIST

1. Pulse (strength, rate, quality)
2. Respirations (strength, depth, rate, and quality)

The next step after Urgent or Focused Body Survey is to take a quantitative (ie counted) measurement of pulse and respiration.

You must measure vital signs repeatedly during an assessment. Do not try to memorize the results. Write them down! **Deterioration of vital signs requires immediate transfer to definitive care.**

Pulse:

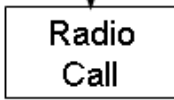
Feel for the strength, rate, and quality of pulse. An abnormal pulse reflects both cardiac impairment and the quality of perfusion. **Increasing pulse rate is an indication of shock. You ignore it to your patient’s peril.**

Do all pulse checks using multiple fingers. Count pulse for fifteen seconds after locating it and multiply by 4.

Respirations

Feel for the strength, depth, rate, and quality of respirations. The patient cannot breathe naturally while aware of their breathing, so measure respirations without the patient’s awareness (eg as continuation of pulse).

RADIO CALL –



CHECKLIST

- S = sex
- A = age
- I – injury
- L = location (where are you?)
- E = equipment needed
- R = Request for additional help and/or ambulance, IF NEEDED.

How the radio call is done will vary greatly from ski hill to ski hill, so we have adopted a protocol, which uses the acronym SAILER

- S = sex
- A = age
- I = injury
- L = location (where are you?)
- E = equipment needed
- R = Request for additional help and/or ambulance, IF NEEDED. If requesting EMS, add pulse, respiration, LOR, what is emergency situation (eg compromised CMS, respiratory distress), and ETA.

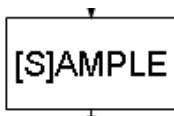
So, an example radio call would sound like this for non-emergency call:

“Dispatch, I have a male, 25 years old, with a shoulder injury, skiers right on Big Dipper near tower 10. I need sled and sled bag.”

And would sound like this for an emergency call:

“Dispatch, I have a male, 25 years old, with a shoulder injury with compromised CMS, skiers right on Big Dipper near tower 10. I need sled, sled bag, and O2. Requesting emergency ambulance. Patient pulse is 80, respirations 16, A&O x4. ETA 20 minutes.”

SAMPLE



CHECKLIST

- [S – signs & symptoms]
- A – allergies
- M – medicines
- P – Prior medical conditions
- L – last oral intake
- E – events leading to current complaint

As part of the Urgent or Focused Survey the S question was asked – what are the signs and symptoms of the pain. This S is the first letter of the acronym SAMPLE - questions for determining medical history.

- S – signs & symptoms.
- A – allergies
- M – medicines
- P – Prior medical conditions
- L – last oral intake
- E – events leading to current complaint

S- Signs & Symptoms

Already completed as part of the Focused or Urgent Surveys. It is how we get the patient to guide our discovery.

A - Allergies

Ask about severe allergies (medicine, foods), find out if they are having a reaction, and do they carry any medication. If conscious and alert, you may assist their self administration.

M – Medicines

You want to find out about four kinds of “medicines”

- Prescription
- Over-the-counter
- Recreational drugs
- Alcohol

If positive to prescription and over-the-counter drugs, ask:

- “What are the medicines?”
- “What are you taking that for?”
- “Did you take it as prescribed? If “No”, then follow up “Was it a contributing cause?”
- “Do you have it with you?”

These questions may identify chronic medical conditions. The current complaint may require taking medication. If conscious and alert, you may assist their self administration.

The evaluation may identify immediate threats to life from alcohol poisoning and drug overdoses.

P - Prior Medical Conditions (asked earlier)

This question was also asked earlier. Now ask it another way, eg “Are you under a doctor’s care for any reason?” Remember HEAD. If there is some problem, ask if carrying any medications – nitroglycerin, inhaler, antihypertensives, antihistamines.

Ask or look for a medic-alert bracelet or necklace, especially if you have an unresponsive patient.

Warning: 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.

P also stands for pregnancy. Any woman with abdominal complaints must be assumed pregnant until proven otherwise. Privacy is especially important when asking these questions of young teens.

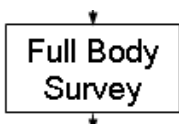
L – Last Oral Intake

Asking about recent meals can point to medical problems. Food patterns may also complicate diabetes, blood sugar regulation problems, or extremely thin people. This question also looks for complications from dehydration which will aggravate altitude sickness. If there is a stomach ache, you might consider asking about bowel movements, eg if fecal impaction might be involved.

E – Events Leading to Being Here

This is a good opportunity to see if you get the same answers as earlier in the assessment.

FULL BODY SURVEY



CHECKLIST

1. Head – shape, eyes, ears, nose, mouth
2. Anterior neck – Is trachea out of place or jugular veins abnormal.
3. Spine - DO NOT roll a patient with a potential neck or back injury; at least try for Cervical Spine (C1 - C7)
4. Shoulders - squeeze one, then the other; move along clavicles
5. Chest - Resist expansion; High & Low; Sternum
6. Abdominal quadrants – check all 4
7. Pelvis - Palpate in first and then palpate down
8. Legs – palpate one, then the other, pedal test
9. Arms - palpate one, then the other, grip test

Sometimes called the head-to-toe examination or secondary survey, it is usually done while waiting for a sled to arrive.

If you are unable to do or complete the Full Body Survey, you should alert the patrollers that show up to assist you that they should complete it, especially the spine palpation.

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 something. 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.

The steps of the Full Body Survey are described here in detail, considering the importance of doing this examination thoroughly. It is the last chance to find unknown conditions that could result in patient harm during treatment and transport, and to assure yourself that nothing was missed during the earlier exams.

Head

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. Put your hands over the eyes and then take them away, watching the response of the pupils – remember the pupils should be equal & round and react to light together. 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

Look at the anterior neck. Notice any abnormalities especially whether the trachea is centered and if the neck veins are prominent.

Spine

Examine the patient's spine if you can without excess movement. Otherwise delay this examination until 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 each vertebrae. Be sure to go from the skull all the way down to the bottom of the tailbone.

Shoulders

Run your hands over the shoulders and squeeze each in turn. Place both thumbs in the notch where the clavicles meet the sternum. Move out the clavicles, one at a time, maintaining continuous contact all the way to the point of the shoulder.

Chest

Grasp the rib cage high under the patient's arms, one hand on each side. 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 any sign of labored or abnormal breathing.

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. Release slowly, and watch for reaction to "rebound".

Pelvis

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

Legs

Now palpate legs. When you find an abnormality or patient complaint, pass over the site to check the rest of the limb. Do this by going to the foot; 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 (“pedal test”). Ask if they can feel both feet, wiggle their toes and if one foot is much colder than the other.

Arms

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. Check to see if the pressure is the same between the two hands and if not, ask why.

2nd Vital Signs

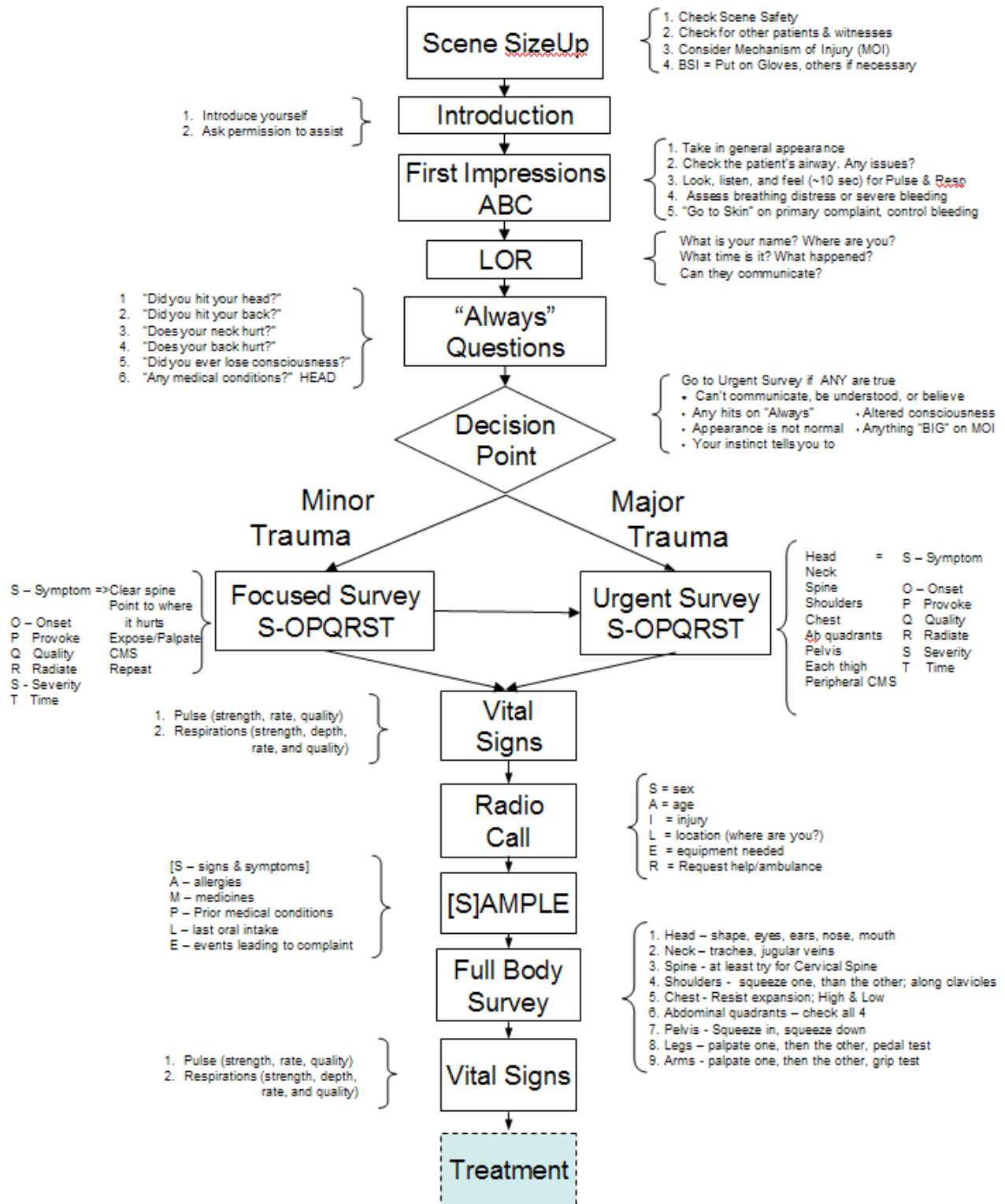


CHECKLIST

1. Pulse (strength, rate, quality)
2. Respirations (strength, depth, rate, and quality)

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. 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. You are now at the point of beginning to treat your patient’s injuries.

Appendix A: Detailed Assessment Flow



Appendix B

Verbalizing the Urgent Body Survey (Dave Galson, Sugar Bowl).

This is what we should be able to verbalize/consider while doing a rapid body assessment. Sugar Bowl wants us to SAY this stuff out loud during our confirmation test.

Urgent Trauma Survey:

Head: I'm looking and feeling for DCAP-BTLS and crepitus. Feel scalp, jaw and face. Look in mouth. Look quickly behind ears.

Neck: I'm looking and feeling for DCAP-BTLS, jugular vein distention, trachea at mid-line and crepitus.

Chest: I'm feeling collar bones for any point tenderness. I'm looking and feeling for DCAP-BTLS, paradoxical motion, and crepitus. I'm assessing breath sounds and evaluating effectiveness of breathing.

Abdomen: I'm palpating the four quadrants and looking for DCAP-BTLS, rigidity (firm or soft), distention, or rebound tenderness.

Pelvis: I'm pressing in and down. I'm looking for DCAP-BTLS. Looking for tenderness or instability.

Lower Extremities: I'm looking and feeling for DCAP-BTLS hips to knees. I'm comparing bilaterally for distal circulation, motor function, and sensation with peddle test and questions about tingling and sensation in the toes.

Back: I'm palpating the posterior spine its full length observing C-spine precautions. I'm feeling for point tenderness, and/or step-off deformities.

Then add when doing Full body survey:

Upper extremities: I'm looking and feeling for DCAP-BTLS in the upper arms, elbows, lower arms, wrists and hands. I'm comparing bilaterally for distal circulation, motor function, and sensation with squeeze test and questions about tingling and sensation in the fingers