

## G8

## SECONDARY SURVEY

The secondary survey (detailed or focused assessment) is a systematic head-to-toe examination of every part of the patient's body, including assessing the vital signs and obtaining a patient history. The call for EMS assistance is often the patient's entry point into the medical care system. It is important that EMS personnel conduct a systematic secondary survey to ensure medical or traumatic conditions are identified and the patient's baseline is established. This will permit identification of changes in the patient's condition.

**GENERAL**

- personal protective equipment should be utilized as required
- body substance isolation techniques should be utilized as required
- a secondary survey should **NOT** be done on the scene if a life threatening illness or injury has been identified and it cannot be immediately corrected
  - performing the secondary survey in this situation is unlikely to yield any conditions that will significantly improve the patient's condition
  - these patients should have their secondary survey carried out en route if possible
- maintaining the airway, assisting with ventilations, or hemorrhage control may prevent a secondary survey from being carried out, even while en route
  - if any of these interventions prevents performance of a secondary survey, the reason(s) should be documented on the patient care report
- perform an organized head-to-toe assessment
- life-threatening conditions not identified in the primary survey but identified in the secondary survey should be treated immediately
- life-threatening conditions identified and treated in the primary survey should be reassessed in the secondary survey
- load and go criteria should be considered throughout the entire secondary survey
- reassure the patient and keep him/her informed about treatment(s)
- obtain a pertinent, focused history from the patient, family, bystanders, and first response agency (if applicable)
  - consider alternate sources of medical identification (e.g. Medic-Alert) if available
- obtain and record
  - level of consciousness
  - pulse
  - respiratory rate
  - blood pressure
  - auscultation of the lungs (if within scope of practice)

- assessment of skin
- assessment of pupils
- pulse oximeter reading, if indicated (if within scope of practice)
- glucometer readings, if indicated (if within scope of practice)

### **SPECIAL CONSIDERATIONS**

#### **Patient History**

- the goal is to facilitate rapid identification of patient problem(s) and establish which problem(s) require immediate care in the field
- circumstances surrounding an emergency response may make it difficult to obtain all relevant historical information
  - EMS personnel must make every effort to obtain a relevant, detailed patient history on every patient and document this information on the patient care report
- the patient history should be focused on eight (8) core components
  - patient identifiers
    - patient name, age, sex, date of birth, and personal health information number
  - chief complaint
    - main reason patient called for assistance
  - mechanism of injury
    - this includes a scene assessment
  - history of present illness or injury
    - this includes a number of qualifying factors
      - location
      - quality
      - intensity
      - quantity
      - sequence of events
      - circumstances surrounding the onset of first symptoms
      - aggravating and alleviating factors
      - associated symptoms
      - attempts to relieve symptoms
      - pregnancy
  - relevant past medical history
    - underlying medical problems
    - name of primary care doctor
    - name of clinic or hospital usually attended
    - Health Care Directives
  - medications
    - include names and doses
    - confirm whether medications have been taken and their effect
    - identify who gave or assisted the patient to take or administer any medications
  - allergies
    - past reactions
    - note any Medic-Alert identification
  - observations
    - what was observed at the scene
    - what was done to and for the patient, particularly
      - extrication
      - intervention(s) or treatment(s)

- medication administration or assistance, including dose, route, time of administration, and change(s) in patient status
- reasons for decisions made that impacted on patient care
  - load and go, environment, physician on scene taking patient care responsibility
- any unusual circumstances
  - violence, abuse, neglect
- any other potentially pertinent information

### Assessment of Vital Signs

- initial set of vital signs should be taken on every patient
  - if not taken, a reason should be documented in the patient care report
- repeat at regular intervals (5-15 min.) or when there is a change in the patient's status
- if the patient's condition is unstable more frequent assessments are required

#### → vital signs must include

##### respirations

- present or absent
- rate (document as breaths per minute)
- rhythm
  - regular or irregular (note any patterns)
- quality
  - evidence of dyspnea should be noted
  - shallow, labored, noisy (if possible, describe the sound)
  - evidence of accessory muscle use or diaphragmatic breathing
- if EMS personnel are trained to perform chest auscultation this should be done in the primary survey and repeated in the secondary survey
  - bilateral, comparative auscultation of the lungs should be done anteriorly and posteriorly
    - note presence or absence of breath sounds

##### pulse

- present or absent
- rate (document as beats per minute)
- rhythm
  - regular or irregular (note any patterns)
- quality
  - strong, weak, absent

##### blood pressure

- measure systolic and diastolic pressures, if possible
- when assessing a BP
  - ensure the BP cuff size is correct
  - palpate a pulse distal to the BP cuff
  - rapidly inflate the BP cuff to approximately 30 mm Hg beyond the pressure at which the pulse initially disappears
  - place the stethoscope diaphragm over the site being utilized for assessment
  - deflate the BP cuff at a rate of approximately 2 mm Hg per second
  - note the systolic and diastolic pressures
  - fully deflate the BP cuff

- document the pressures as systolic / diastolic in mm Hg
- if the assessment was done by palpation, record the pressure as systolic / P
- document any difficulties in obtaining a blood pressure
- patient's position when measured

**Glasgow Coma Scale**

- score each component and record it on the patient care report
- repeat the assessment at regular intervals (5-15 mins.) or when there is a change in the patient's status
- the "AVPU" scale can be used as an alternate method to assess level of consciousness during the primary survey, but a more formal assessment using the Glasgow Coma Scale is required for the Secondary Survey

**Secondary Survey**

- detailed head-to-toe survey includes assessment of all parts of the body using
  - observation
  - comparison for bilateral symmetry
  - inspection
  - auscultation (if within scope of practice)
  - palpation
- life threatening conditions found during the secondary survey should be treated immediately
  - load and go should be considered if this occurs
  - cervical spine stabilization should be maintained during the secondary survey, if indicated
  - level of consciousness should be monitored and reassessed during the secondary survey
  - the patient's clothing should be removed or cut away in order for EMS personnel to properly assess the patient
    - patient privacy should be maintained at all times

**Skin**

- check for evidence of cyanosis, diaphoresis, discoloration, or trauma
- assess skin color, temperature and moisture

**Neck**

- check for trauma, jugular vein distension, or presence of a stoma
- check for deformities of the bony spine or soft tissues
- check for tracheal deviation
- look for Medic-Alert identification
- palpate for tenderness, swelling, or abnormalities
- assess carotid pulse

**Scalp and Skull**

- check for trauma or external bleeding
- look for evidence of basilar skull fracture
- inspect and gently palpate for depressions and impaled objects
- assess for tenderness or pain

**Ears and Nose**

- check for trauma or deformity
- check for discharge or blood
- assess for tenderness or pain

**Face**

- check for trauma or bleeding
- check for cyanosis and diaphoresis
- assess for tenderness or pain
- assess for symmetry and facial droop
- assess mouth for
  - foreign bodies
  - broken dentures and teeth
  - blood or vomitus
  - abnormal smells
  - impaled objects
- assess lips for cyanosis or trauma

**Eyes**

- check for trauma or bleeding
- look for glass eye or contact lenses
- assess for tenderness or pain

**Pupils**

- check for abnormal shape(s)
- look for cataracts or evidence of eye surgery
- assess pupil size
  - note size in millimeters for each eye
- assess the pupillary reaction to light
  - normal or slow
- assess eye movement

**Chest**

- reassess the chest during the secondary survey
- look for evidence of obvious trauma
- examine for
  - signs of respiratory distress
  - use of accessory muscles
  - diaphragmatic breathing
  - paradoxical respirations
  - penetrating injuries
- palpate the chest for
  - symmetry on inspiration and expiration
  - tenderness and instability
  - subcutaneous emphysema
- assess shape and symmetry
- assess chest as far to the posterior as possible
- auscultate for equality of breath sounds through bilateral comparison (if within scope of practice)
- note any changes from assessments in the primary survey
- treat for any flail segments, penetrating injuries, or impaled objects

**Pulse Oximetry (if within scope of practice) (refer to Appendix 19)**

- obtain only where indicated
- limitations of the pulse oximeter must be kept in mind
  - treatments should be based on the patient's presenting condition, **NOT** on pulse oximeter readings
  - a pulse oximeter should never be used to monitor a patient at the exclusion of repeated physical assessment and monitoring

**Abdomen**

- expose the abdomen
- inspect the abdomen prior to a physical assessment for
  - obvious trauma, impaled objects, or evisceration
  - distension
  - use of accessory muscles during respirations and for diaphragmatic breathing
- palpate the abdomen
  - assess each quadrant, by palpating gently using a flat hand and fingers
- assess for evidence of peritoneal irritation
  - pain, guarding, or rigidity

**Pelvis**

- check for obvious trauma, impaled objects, or pain
- check for symmetry or deformity
- note pain or crepitus when the pelvis and symphysis pubis are palpated
- assess for priapism and incontinence of urine or feces
- check for evidence of hemorrhage

**Extremities**

- expose the extremities
- check for obvious trauma, impaled objects, or hemorrhage
- check for symmetry or deformity
- check for pain or crepitus
- check for color, warmth, circulation and movement in each extremity
  - pay particular attention to the hands and feet
- check for paralysis, or changes or loss of sensation
- look for any shortening or rotation
- look for any joint injury
- assess hand and foot strength
  - compare bilaterally
- assess for edema
- assess for pulses and adequacy of sensation and movement distal to any injury
- look for the presence of Medic-Alert identification

**Back**

- if not contraindicated, the patient should be carefully log rolled to assess the back
  - cervical spine control should be maintained during assessment of the back
- if appropriate, a back board (or equivalent device) should be positioned so that when the patient is log rolled back it is directly onto the back board
- check for obvious trauma or hemorrhage
- check for localized pain or deformity of the spine
- check for generalized pain and crepitus
- check for movement and sensation distal to any suspected spinal injury

- look for penetrating injuries or impaled objects
- palpate for subcutaneous emphysema
- reassess the patient's vital signs and level of consciousness
- record all findings, including pertinent negatives, on the patient care report
- report the relevant patient information to the staff at the receiving health care facility

*NOTES :*