

# Patient Assessment

Patient Assessment- procedures performed to find out what is wrong with a patient on which decisions about emergency medical care and transport will be based.

- Performed on every patient-the key to all medical care
- Use a Systematic, constant approach to Patient Assessment
- The first step in caring for any patient is a good Initial Assessment.

**Initial Assessment-** the portion of patient assessment conducted immediately following scene size-up for the purpose of discovering and treating immediate life threatening conditions.

**General impression-** performed as the EMT approaches the patient

- Assess Mental Status
  - Assess ABC's
    - **A**=Airway-patient answers or open, inline jaw thrust or head tilt chin lift, suction if needed
    - **B** = Breathing-assess, shallow/deep, noises, equal rise and fall, give O<sub>2</sub>
    - Ventilate with supplemental O<sub>2</sub>
    - **C** = Circulation-central, distal pulses, capillary refill, skin color/temp/condition, major bleeding
    - **D**=Disability AVPU – Deformity
    - **E**=Expose injured areas-remove clothing as needed
    - Patient age
    - Patients gender
  - Patient s environment
  - Patients chief complaint (cc)
  - History of present illness (HPI)
  - Immediate life threats
  - Mechanism of Injury
- Determine the patient's priority and perform a rapid assessment or focused assessment as necessary.

**Identify Priority Patients (Load-N-Go) NO** more than 10 minutes on scene (Platinum 10 minutes)

## Medical Patients

- |                          |  |
|--------------------------|--|
| -Poor-general impression | -Unresponsive patient-No gag reflex or cough |
| -Altered LOC             | -Difficulty Breathing                        |
| -Shock (hypoperfusion)   | -Complicated childbirth                      |
| -Chest pain with BP<100  | -Uncontrolled Bleeding                       |
| -Severe pain anywhere    |  |

## Trauma Patients

- Ejection from Vehicle
- Fall over 20 feet
- Roll over collision
- Vehicle/pedestrian crash
- Unresponsive
- Hidden injuries (Seatbelt)
- Death of another passenger in same vehicle
- Fall over 3X patient's height
- High speed crash +50 mph
- Motorcycle Crash
- Altered mental Status
- Penetrations of Head/Chest/Abdomen

## Infants and Children

- Falls over 10 feet
- Medium speed vehicle crash 35-50 mph
- Bicycle crash

## Mental Status/Disability-AVPU

- A= Awake
- V= Responsive to verbal stimuli
- P= Responsive to painful stimuli
- U= Unresponsive

## Rapid Assessment

- Head-to-toe survey to identify life threatening problems
- Life threatening conditions are stabilized and the patient is transported rapidly

## Focused Assessment

- Patient with life-threatening injuries the *Detailed Physical Exam* is performed enroute to ED
- Focused Assessment on a medical patient will focus on a particular problem
- Focused Assessment on a Trauma patient may focus on a specific part or multiple systems

## Focused History and Physical Exam- Trauma Patient

### Significant MOI

- Ejection from vehicle
- Death of another passenger in same vehicle
- Falls over 20 feet
- Roll over collision
- High speed collision
- Vehicle/pedestrian collision
- Motorcycle collision
- Unresponsive/altered level of consciousness (LOC)
- Penetrating injuries to Head/Chest/Abdomen
- Hidden injuries-seatbelt, airbags, etc.
- Infants and children
  - Falls over 10 feet
  - Medium speed collision
  - Bicycle crash



If significant MOI:

- Assess mental status = AVPU
- Rapid physical exam
- Assess baseline vitals
- Obtain SAMPLE History
- Consider ALS
- Reconsider transport decision. MED FLIGHT, etc.

### Rapid Trauma Assessment

- Head
- Face
- Neck
- Chest
- Abdomen
- Pelvis
- Extremities
- Posterior

**Inspect and Palpate (DECAP-BTLS)**- acronym used for assessing trauma patients

- |                                  |                        |                           |
|----------------------------------|------------------------|---------------------------|
| <u>D</u> = Deformities           | <u>B</u> = Burns       | <u>P</u> = Pulse          |
| <u>C</u> = Contusions            | <u>T</u> = Tenderness  | <u>M</u> = Motor function |
| <u>A</u> = Abrasions             | <u>L</u> = Lacerations | <u>S</u> = Sensation      |
| <u>P</u> = Puncture/Penetrations | <u>S</u> = Swelling    |                           |

### Cervical Collar

- Measure patients neck, imaginary line from chin
- Measure the C-Collar
- Manually stabilize C-spine (head/neck)
- Slide collar under chin
- Wrap collar around neck, secure

If NO significant MOI:

- Reconsider MOI
- Perform focused physical exam based on:
  - Chief complaint
  - MOI
- Assess Baseline Vital Signs
- Obtain SAMPLE History
- Make Transport decision

### Focused History and Physical Exam: Medical Patient

#### Responsive Patient

- History of Present Illness (HPI)
- Obtain SAMPLE History
- Focused Physical Exam
- Baseline Vital

## History of Present Illness (OPQRST)-acronym used to a picture of the present situation

**O** = Onset-When did the pain begin?

**P** = Provocation- What causes the pain (i.e. moving, eating, coughing, etc.)

**Q** = Quality- What exactly does the pain feel like? Is it Dull, Stabbing, Cramping?

**R** = Radiation-Does the pain spread to other parts of the body? (Arm, Jaw, Neck, etc.)

**S** = Severity-How does the pain rate on a 1-10 scale. With 1 being no pain and 10 being the worst possible pain?

**T** = Time-Does the pain change over time. Is it constant, or does it come in waves?  
Does it go away or stay the same?

**S** = Signs and Symptoms

**A** = Allergies

**M** = Medications

**P** = Pertinent past medical history

**L** = Last oral intake

**E** = Events leading to the problem

## Focused Exam as Appropriate Assess:

- Head
- Chest
- Pelvis
- Posterior
- Neck
- Abdomen
- Extremities

- Baseline vital signs

## Additional Information required for medical problems the EMT can treat:

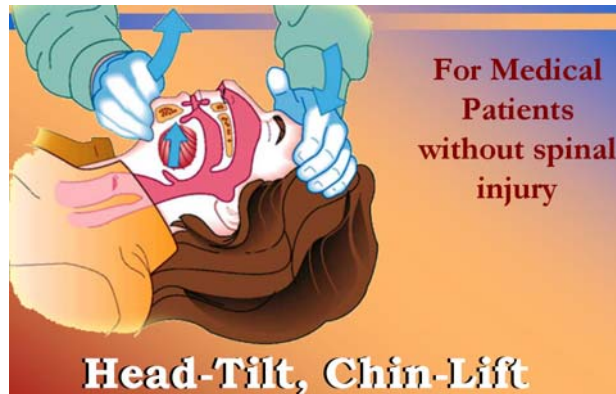
- Chest Pain
- Difficulty Breathing
- Allergic Reactions
- Altered Mental Status
- Poisoning and Overdose
- Exposure to Heat and Cold

## Unresponsive Patient – (always load & go)

- Rapid Assessment
  - Head, Neck, Chest, Abdomen, Pelvis, Extremities. Posterior
- Maintain ABC's
- Baseline Vital. Signs
- HPI
- Sample History
- OPQRST
- SAMPLE History

## Detailed Physical Exam

- Patient's condition determines whether a Detailed Physical Exam is needed.
- A patient with minor injury and no significant MOI probably does not.
- A patient **WITH** Significant MOI **DOES** need a detailed Exam.
- If unsure, perform a Detailed Physical Exam



**Assess areas examined in rapid trauma assessment Plus:**

| <b>EXAMINATION</b>                  | <b>Signs and Symptoms</b>   | <b>Possible Implications</b>                                       |
|-------------------------------------|---|--|
| <b>Palpate Scalp</b>                | <b>Deformity, Bleeding</b>  | <b>Blow to head, Skull Fracture</b>                                |
| <b>Check face</b>                   | <b>Bruises, Bleeding, Deformity</b>   | <b>Facial fractures, Skull fracture</b>                            |
| <b>Eyes, Pupils</b>                 | <b>Dislocation, Size, Reactivity, Blood</b>   | <b>ICP, Foreign Body</b>   |
| <b>Ears and Nose</b>                | <b>Fluid, Bruising behind ears</b>  | <b>Bloody nose, skull Fracture. ICP</b>                            |
| <b>Palpate Face and Jaw</b>         | <b>Bruising around eyes</b>   | <b>ICP, Skull fracture</b>   |
| <b>Check inside Mouth</b>           | <b>Broken Teeth, Foreign Matter, Odors, Discoloration, Drainage</b>                                       | <b>Airway concerns, Diabetic ETOH</b>                              |
| <b>Trachea</b>                      | <b>Deviation to one side</b>  | <b>Chest wall injury, Pneumothorax (tension)</b>                   |
| <b>Jugular Veins</b>                | <b>Distended</b>  | <b>Heart or Lung injury</b>  |
| <b>Palpate Neck &amp; Back</b>      | <b>Tenderness, Step-off, Deformity</b>  | <b>Spine injury, Fracture</b>                                      |
| <b>Palpate Shoulder</b>             | <b>Stable, Pain</b>   | <b>Fracture, Dislocation</b>                                       |
| <b>Palpate Ribs, Chest, Sternum</b> | <b>Unstable, Pain, Grating Sound, Absent Lung Sounds</b>  | <b>Chest wall injury, Pneumothorax (tension)</b>                   |
| <b>Breathing</b>                    | <b>Symmetrical rise &amp; fall</b>  | <b>Flail Chest</b>   |
| <b>4 Quadrants of Abdomen</b>       | <b>Rigidity, Pain, Guarding</b>   | <b>Abdominal injury or illness</b>                                 |
| <b>Examine Skin</b>                 | <b>Color, Temperature, Condition</b>  | <b>Injury or Exposure</b>  |
| <b>Pelvis / Hips</b>                | <b>Push down, Stable/Unstable. Pain</b>   | <b>Pelvic fracture, Internal bleeding<br/>Urinary Incontinence</b> |
| <b>Genitals</b>                     | <b>Bleeding, Tenderness</b>   | <b>Soft tissue injury, UTI, Yeast infection</b>                    |
| <b>Arms, Legs, Hands, Face</b>      | <b>Unstable, Decreased range of motion, Unable to move, abnormal circulation, sensation, and movement</b> | <b>Fracture, Dislocation, Sprain, Strain, Soft tissue injury</b>   |

**Perform the Inspection More Slowly than the Rapid Trauma Assessment.**

**Ongoing Assessment**

- Repeat initial assessment
- Reassess vitals
  - Stable patient every 15 minutes
  - Unstable patients every 5 minutes
- Repeat focused assessment
- Reassess mental status
- Maintain Airway, Monitor breathing
- Reassess vital signs
- Re-evaluate patient priority
- Constantly re-evaluate the patient

## Treatment and Transport

- Low Priority patients "stay-and-play"- treat individual injuries and immobilize all injuries
- High Priority patients- stabilize the life threatening problems and transport
  - No more than 10 minutes on Scene- Platinum 10 minutes
  - Golden hour- From time of incident to arrival in Operating Room
    - Discovery of incident and activation of EMS 20 minutes
    - EMS packaging and treatment 10 minutes
    - Initial hospital Stabilization 20 minutes
  - Only 5% of injuries are considered "Critical" or "load-and go"



DILATED



CONSTRICTED



UNEQUAL

# PATIENT ASSESSMENT

## AVPU

**Awake**      **Verbal**      **Pain**      **Unresponsive**  
eyes *open*,  
able to speak, squeeze my fingers, wiggle your toes  
rubbing the sternum, pinching the earlobe,  
lose gag or cough

## BTLS

**Burns**      **Tenderness**      **Lacerations**      **Swelling**

## DCAP

**Deformity**    **Contusion**      **Abrasion**      **Puncture**  
feel for tenderness, swelling, lacerations, open wounds, bruises  
Skin temperature  
Auscultate for breath sounds/listen for crackling, crepitation, gurgling, stridor.  
breath odors, body of breath

## OPQRST

**Onset**      **Provocation**      **Quality**      **Radiation**      **Severity**      **Time**  
When /how did symptoms begin - sudden onset or gradual. What were you  
doing when this started?  
What makes the symptoms worst - what makes them better?  
How would you describe the pain?  
Where does it go?

Scale of 1-10 how bad is it?

*How long since the symptoms started? Was there a change in the symptoms  
since they started?*

## SAMPLE

*Signs, symptoms allergies medication pertinent history last meal event*

How do you feel? Where does it hurt?

What are you allergic to? .Allergic to any medications? Check for medic alert tag.

What medications are you currently taking? When was the last time today that  
you took that medication?

Any recent illnesses?

When was the last time you ate today? Have you had anything to drink since  
Then?

Can you tell me what happened? Why did you call the rescue squad?

- A** - Airway
- B** - Breathing
- C** - Circulation

- A** - Awake
- V** - Verbal
- P** - Pain
- U** - Unresponsive

- D** - Deformities
- C** - Contusions
- A** - Abruasions
- P** - Punctures & Penetrations

- B** - Burns
- T** - Tenderness
- L** - Lacerations
- S** - Swelling

- O** - Onset (When/How did symptoms start)
- P** - Provocation (What caused or makes symptoms change)
- Q** - Quality (Describe symptoms/sensations/pain)
- R** - Radiation (Does sensation move to other body areas)
- S** - Severity (How severe is discomfort/scale 1 to 10)
- T** - Time (How long have symptoms lasted)

- S** - Signs & Symptoms
- A** - Allergies
- M** - Medications (Prescribed or over counter)
- P** - Past Pertinent Medical History
- L** - Last Oral Intake (Fluid & Solid)
- E** - Events Leading to History of Present Illness

**1 Scene Size-up**

**2 Initial Assessment**

- Chief Complaint
- Check for obvious life threatening problems
- Level of consciousness
- Airway Status
- Breathing Assessment
- Circulatory Assessment
  - Pulse
  - Bleeding
  - Skin Color / Temp / Condition
- Identification of Priority Patients
  - Stable/Unstable
- Transport decision
- Need for advanced Life Support
- Need for other back-up services

**3 Focused History and Physical Exam**

- Mechanism of injury ( MOI ) or Nature of Illness ( NOI )
- Rapid Assessment
  - DCAP
  - BTLS
- Assess Baseline Vital Signs
  - Breathing: Rate, Rhythm, Depth
  - Pulse: Rate, Quality
  - Pupils: Size, Reactivity
  - Blood Pressure
  - Capillary Refill: For children >6 years old ONLY
- Assess Sample History
  - SAMPLE

**4 Detailed Assessment**

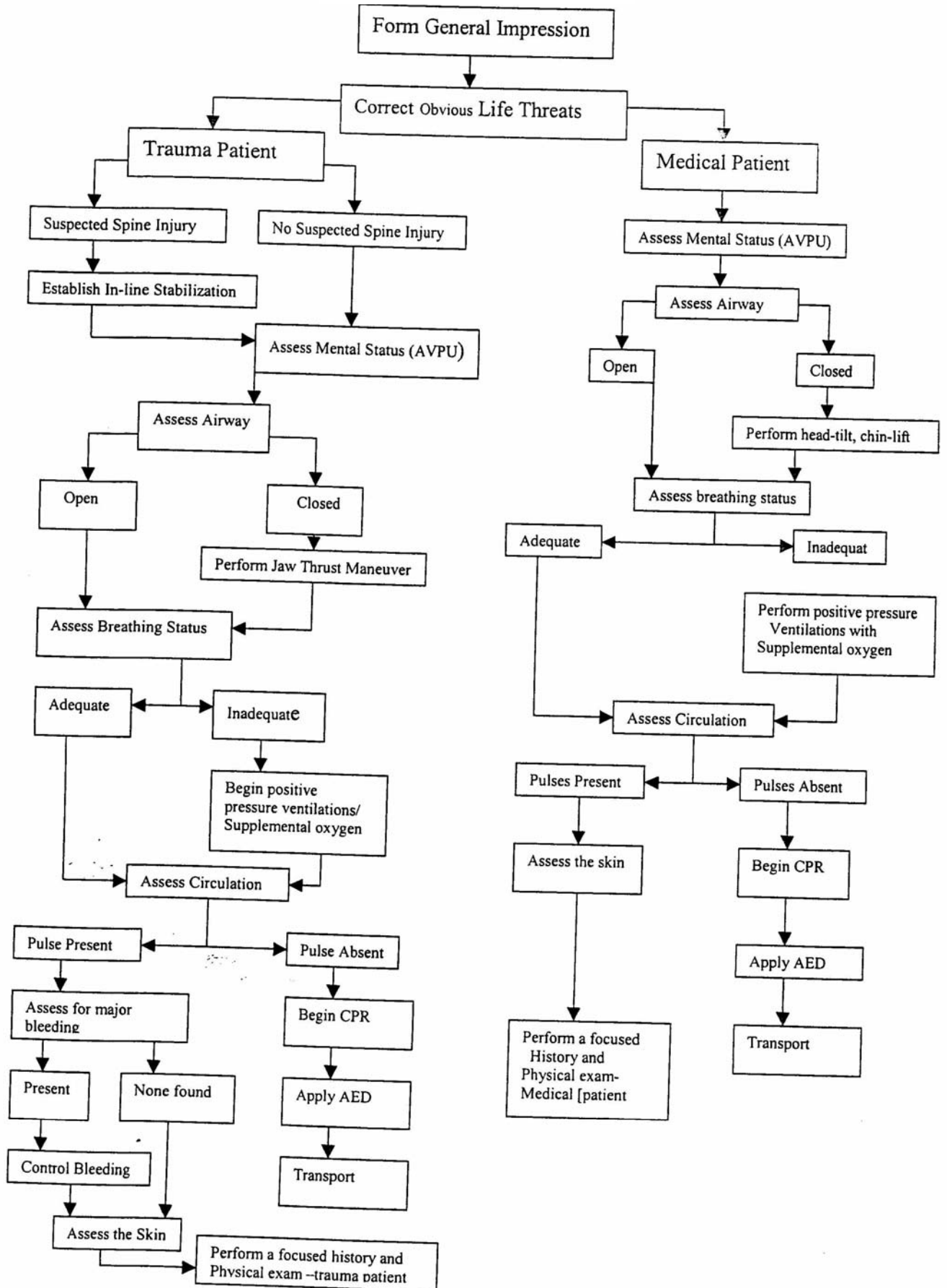
- Complete head to toe assessment
  - Area previously examined
  - Areas not previously examined

**5 On-Going Assessment**

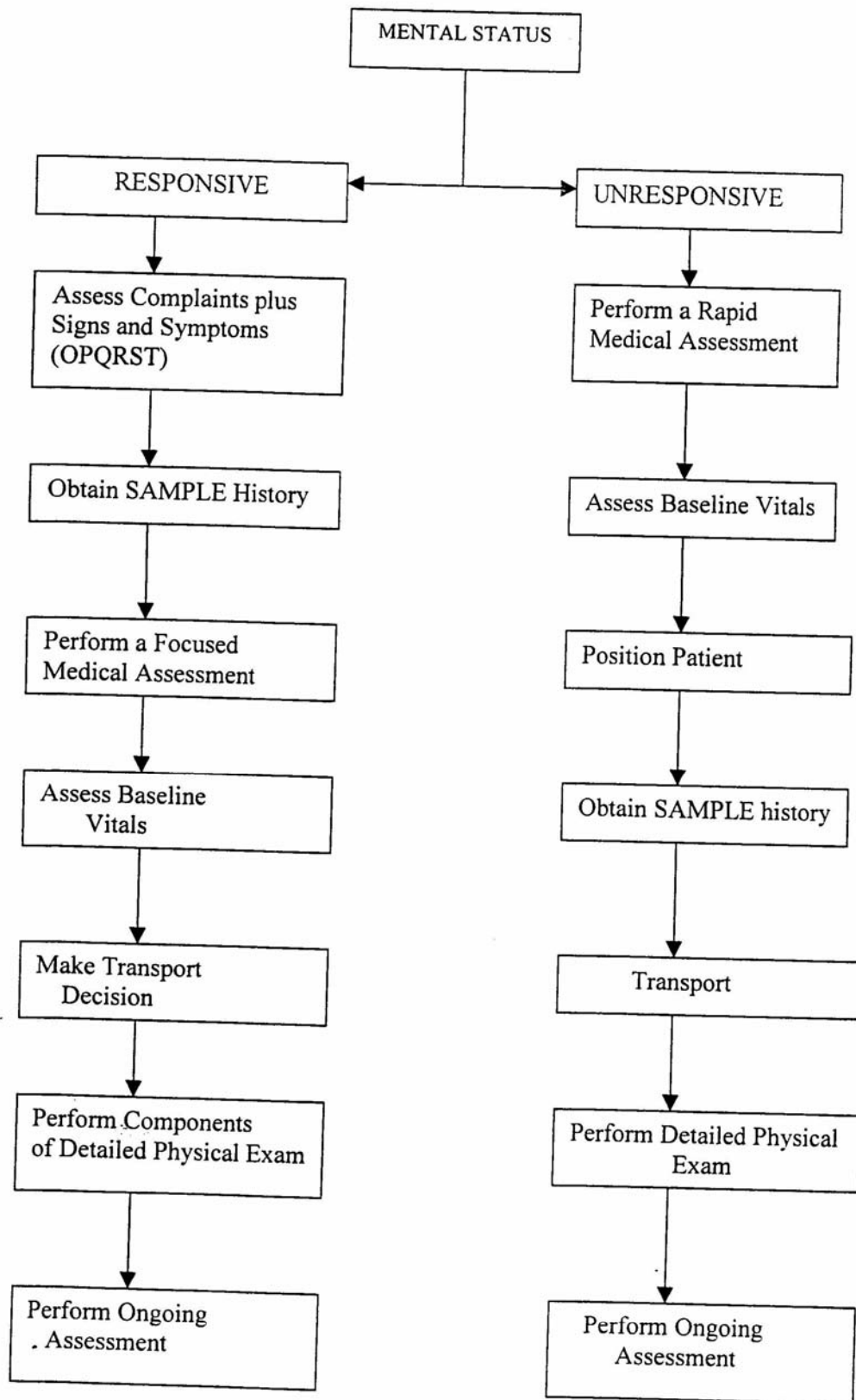
- Stable patient - repeat every 15 minutes
- Unstable patient - repeat every 5 minutes

| <b>Vitals</b>         |                    |                  |
|-----------------------|--------------------|------------------|
| <b>Pulse</b>          |                    |                  |
| 60 - 80               | Adult              |                  |
| 60 - 120              | Child & Adolescent |                  |
| 80 - 150              | Toddlers           |                  |
| 120 - 150             | Infants            |                  |
| <b>Respirations</b>   |                    |                  |
| 12 - 20               | Adult              |                  |
| 15 - 30               | Child & Adolescent |                  |
| 25 - 50               | Infants            |                  |
| <b>Blood Pressure</b> |                    |                  |
| <b>Systolic</b>       |                    | <b>Diastolic</b> |
| age + 100             | Adult Male         | 60 - 90          |
| Age + 90              | Adult Female       | 50 - 80          |
| 2 X age + 70 - 90     | Children/ Infants  | 2/3 systolic     |

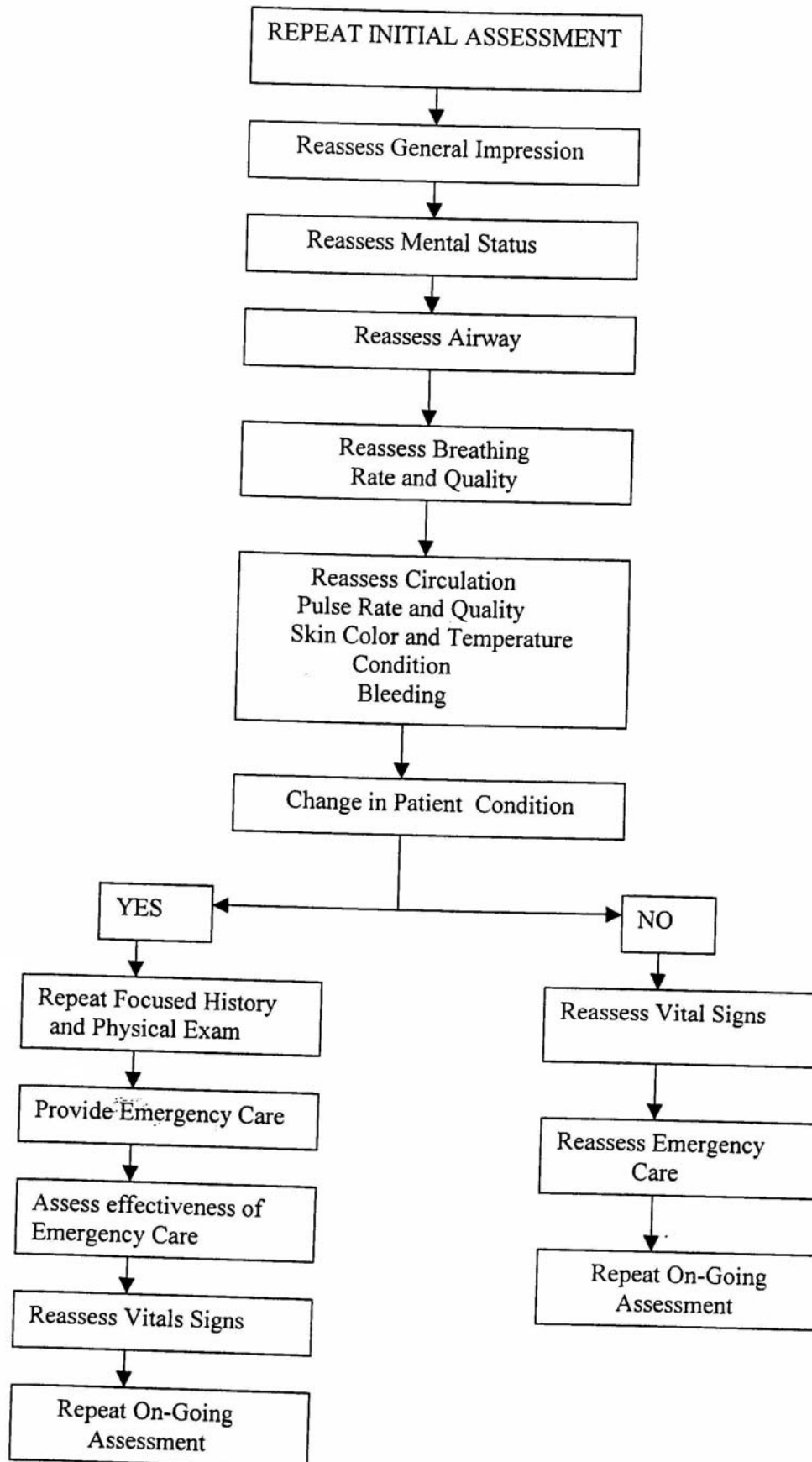
# Initial Assessment



# Focused History and Physical Exam: Trauma



# Detailed Physical Exam



# Patient Assessment

