Secondary survey in trauma patient

AMPLE HISTORY AND MECHANISM OF INJURY

STEP ONE Obtain AMPLE history from the patient, family, or pre hospital personnel

A Allergies
M Medications currently used
P Past illnesses/Pregnancy
L Last meal
E Events? Environments related to the injury

STEP TWO Obtain history of injury producing event and identify injury mechanism

HEAD AND MAXILLOFACIAL

STEP ONE Assessment

A. Inspect and palpate entire head and face for lacerations, contusions fractures, and thermal injury
B. Reevaluate pupils
C. Reevaluate the level of consciousness and GCS score
D. Assess eyes for haemorrhage, penetrating injury, visual acuity, dislocation of lens, and presence of contact lenses
E. Evaluate cranial nerve functions
F. Inspect ears and nose for cerebrospinal fluid leakage
G. Inspect the mouth for bleeding and CSF .soft tissue laceration and loose teeth

STEP TWO Management

A. Maintain air way and continue ventilation and oxygenation as indicated
B. Control haemorrhage
C. Prevent secondary brain injury
D. Remove contact lenses

CERVICAL SPINE AND NECK

STEP ONE Assessment

A. Inspect for signs of blunt and penetrating injury, tracheal deviation, and use of accessory respiratory muscles
B. Palpate for tenderness, deformity, swelling ,subcutaneous emphysema ,tracheal deviation and symmetry of pulses
C. Auscultate the carotid arteries for bruits
D. Obtain a CT of the cervical spine or a lateral cross table cervical spine X-ray

STEP TWO Management; Maintain adequate in line, immobilization and protection of the cervical spine

CHEST

STEP ONE Assessment

A. Inspect the anterior, lateral and posterior chest wall for signs of blunt and penetrating injury, use of accessory breathing muscles and bilateral respiratory excursions

B. Auscultate the anterior chest wall and posterior bases for bilateral breath sounds and heart sounds

C. Palpate the entire chest wall for evidence of blunt and penetrating injury, subcutaneous emphysema, tenderness and crepitation

D. Percuss for evidence of hyper resonance or dullness

STEP TWO Management

A. Perform needle decompression of pleural space or tube thoracotomy as indicated

B. Attach the chest tube to an underwater seal drainage device

C. Correctly dress an open chest wound

D. Perform pericardiocentesis as indicated

E. Transfer the patient to the operating room if indicated

ABDOMEN

STEP ONE Assessment

A. Inspect the anterior and posterior abdomen for signs of blunt and penetrating injury and internal bleeding

B. Auscultate for the presence of bowel sound

C. Percuss the abdomen to elicit subtle rebound tenderness

D. Palpate the abdomen for tenderness. involuntary muscle guarding, unequivocal rebound tenderness, and gravid uterus

E. Obtain pelvic X-ray films

F. Perform DPL/abdominal ultrasound if warranted

G. Obtain CT of the abdomen if the patient is haemodynamically stable

STEP TWO Management

A. Transfer the patient to the operating room if indicated

B. Wrap a sheet round the pelvis or apply a pelvic compression binder as indicated to reduce pelvic volume and control haemorrhage from a pelvic fracture

PERINEUM / RECTUM / VAGINA

STEP ONE Assessments for;

A. Contusions and hematoma

B. Lacerations

C. Urethral bleeding

STEP TWO Rectal assessment in selected patients assess for;

A. Rectal blood
B. Anal sphincter tone
C. Bowel wall integrity
D. Bony fragments
E. Prostate position

STEP THREE Vaginal assessment in selected patients assess for;

A. Presence of blood in vaginal vault
B. Vaginal laceration

MUSCULOSKELETAL

STEP ONE Assessment

A. Inspect the upper and lower extremities for blunt and penetrating injuries including contusions, laceration and deformity
B. Palpate the upper and lower extremities for tenderness, crepitation abnormal movements and sensations
C. Palpate all peripheral pulses for presence, absence and equality
D. Assess the pelvis for fractures and associated bleeding
E. Evaluate the pelvic X-ray film for fractures
F. Obtain X-ray films of suspected fracture sites

STEP TWO Management

A. Apply and/or readjust appropriate splinting devices for extremity fractures as indicated
B. Maintain immobilization of the thoracic and lumber spine
C. Apply splint to immobilize an extremity injury
D. Give tetanus immunization
E. Give medications as directed by the specialist
F. Perform complete neurovascular examination of the extremities

NEUROLOGIC

STEP ONE Assessment

A. Reevaluate the pupils and level of consciousness
B. Determine the GCS score
C. Evaluate the upper and lower extremities for motor and sensory functions
D. Observe for localizing signs

STEP TWO Management

A. Continue ventilation and oxygenation
B. Maintain adequate immobilization of the entire patient

ADJUNCTS TO SECONDARY SURVEY

Consider the need for and obtain these diagnostic tests as the patient condition permit and warrants;

- Spinal X-ray
- CT of the head, chest, abdomen and/or spine
- Contrast urography
- Angiography
- Extremity X-ray
- Trans esophageal ultrasound
- Bronchoscope
- Esophagoscopy

Glasgow Coma Score (GCS)

Eyes open

Spontaneously	4
To verbal command	3
To painful stimulus	2
Do not open	1

Verbal

Normal oriented conversation	5
Confused	4
Inappropriate/words only	3
Sounds only	2
No sounds	1
Intubated	T

Motor

Obeys commands	6
Localizes to pain	5
Withdrawal/flexion	4
Abnormal flexion (decorticate)	3
Extension (decerebrate)	2
No motor response	1