

GUIDELINES FOR INITIAL MANAGEMENT OF ALL TRAUMA PATIENTS

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PURPOSE

This guideline will provide direction for proper initial management of trauma patient.

SCOPE

These guidelines are for medical practitioners to help them in understanding pathophysiology of trauma, clinical management and complications of trauma
Contents of guidelines

- Assessment of trauma patient
- Objectives of initial therapy
- Investigation plan
- Assessment for definitive management

RECOMMENDATIONS

Following steps should be considered in initial management of all trauma patients

Clinical assessment of patients for assessment of any tissue damage must be done doing primary survey.

Determine if the patient need surgical treatment then inform surgical team as soon as possible.

When tissue injury identified formulate investigation plan.

Continued monitoring of patient must be done. Initial treatment including analgesia, fluid therapy, antibiotic and anti-tetanus therapy must be given.

Documentation of all activities must be done with time and date for medico legal reasons.

(AS PER ATLS RECOMMENDATIONS)

In a disaster situation, patient's triage i.e. those with live threatening injuries and with the greatest chance of survival are treated first.

PRIMARY SURVEY

The first step is assessment including brief history which includes evaluation of mechanism of injury such as

- Status of victim (pedestrian , passenger rear seat or front seat).
- Velocity of vehicle if involved.
- Height of fall.
- Any protective devices such as helmet and etc.
- In case of firearm or stab injuries, the nature of weapon.

Following information also should be gathered from patient , relatives or paramedics

- A - Allergies
- M - Medications
- P - Past Medical History
- L - Last meal (what time)
- E - Events surrounding the time of injury

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Airway Maintenance with Cervical Spine Stabilization

Assume cervical spine injury in all blunt trauma patients. Hence protect the spinal cord with cervical collar or manual in-line immobilization. If patient is conscious, ask his name.

A clear accurate response verifies the patient's ability to protect his airway, at least temporarily. Inspection of oropharyngeal cavity for disruption; injuries to the teeth or tongue, blood, vomitus, pooling of secretions or foreign body. Inspection and palpation of anterior neck for lacerations, hemorrhage, crepitus, swelling or other signs of injury. If patient is unable to protect his airway, secure a definitive airway (oro-tracheal or cricothyrotomy in our setup). In the unconscious patient, the airway must be protected immediately once any obstructions (e.g. foreign body, vomitus, displaced tongue) are removed. In patients with direct airway trauma e.g. facial, mandibular, tracheal/laryngeal fractures, superficial facial and neck burns, neck and facial haematoma, secure a definitive airway early.

Breathing and Ventilation

Administration of high flow oxygen using a non-rebreathing reservoir. Inspection of chest wall expansion, symmetry, respiratory rate and wounds. Palpation of tracheal deviation and surgical emphysema. Percussion and auscultation of chest for breath sounds.

Identification and treatment of life threatening conditions such as tension pneumothorax, flail chest with pulmonary contusion and massive haemothorax.

Circulation with Haemorrhage Control

Record of blood pressure and pulse. Signs of shock. Placement of two large bore I/V

cannulae. blood for cross match is sent. Fluid resuscitation with crystalloids e.g. Ringer's lactate (warmed solution preferred). O Negative blood can be used in severe cases. Control of external bleeding with pressure, elevation or proximal tourniquet. If there is no obvious source of haemorrhage and the patient is hypotensive suspicion of bleeding into the chest, abdomen, retroperitoneum, muscle compartment or pelvic and long bone fractures. If the patient does not respond to initial fluid bolus, then surgical control of haemorrhage (laparotomy, thoracotomy).

Disability

Focused neurologic examination. This includes a description of the patient's level of consciousness using the Glasgow Coma scale (GCS) score, and assessments of pupillary size and reactivity, gross motor function, and sensation. Assessment of any lateralizing signs and the level of sensation if a spinal cord injury is present. After excluding hypoxia and hypovolemia, consideration of any changes in the level of consciousness due to head injury.

Exposure and Environment Control

Patient is undressed for thorough examination. Prevention hypothermia using warm clothing and warm I/V fluids (hypothermia is a cause of coagulopathy and multiorgan dysfunction).

Initial steps of management

This includes oxygen, analgesia intravenous, intravenous fluid therapy, antibiotics if required and Anti-tetanus therapy must be given. Required investigation must be arranged on urgent basis.

Documentation

All injuries and steps of treatment will be documented clearly and precisely. This is

essential for medico-legal reasons.

Continuous Monitoring

The parameter such as blood pressure,

pulse, temperature, O₂ saturation, urine output and Glasgow coma scale must be recorded and frequency of monitoring must be clearly mentioned.