

SUMMARY

- 1-a Trauma is the third common cause of death after cardiovascular disease, and cancer in western countries. The mortality, and morbidity of trauma affects mostly the young, and causes loss of many years of working life. Trauma seems to be on increase because of the modern way of living and transport. Death from trauma is medically preventable in one third of all deaths from trauma.
- 1-b Trauma care is an integral part of emergency medical services. Proper management of trauma victim needs the organisation of accident service.
- 1-c At the scene of the accident prehospital resuscitation must start. This basically consists of getting access to the victim, his extraction, triage, transport, and instituting life saving measures.
- 1-d Grading the severity of trauma is now standardised. The best available scoring systems are; injury severity score, CRAMS score, and Glasgow coma scale.
- 2-a Trauma initiates a widespread system response almost involving all organs of the body. The aim of this response is to keep homeostasis, and to provide nutrients, and perfusion to vital organs especially the heart and the brain.
- 2-b The cardiovascular response after trauma compensates for blood loss of up to 1 litre while maintaining the blood pressure, losses of less

than 1-1.5 litres of blood need replacement by crystalloids, and losses more than 1.5 litres need replacement by crystalloids and blood.

- 2-c Trauma causes endocrine responses increasing the catecholamines, cortisol, aldosterone, vasopressin, growth hormone, angiotensin, and glucagon, while insulin is relatively unaffected. Thyroxin, parathormone, calcitonin, and sex hormones are not altered.
- 2-d The endocrine environment after trauma causes profound metabolic changes, affecting carbohydrate (mainly hyperglycaemia), proteins (protein breakdown in the muscles and much less degree visceral organs, while plasma protein synthesis in acute phase reactant proteins synthesis is increased), and fat (lipolysis is increased).
- 2-e The oxygen consumption after trauma is increased by 50% because of the hypermetabolic state.
- 2-f when cardiovascular response fails to maintain proper tissue perfusion, shock supervenes and this if untreated can lead to fatal complications like single organ failure (lung, kidney, liver, clotting, immune system, G.I.T., or the heart), or multiple organ failure when more than one organ failure follow sequentially.
- 3-a The initial management of the polytrauma patient is very vital especially the first hour after trauma. The priorities of resuscitation are:
1. Airway maintainance.
 2. Breathing.
 3. Circulation.

- 3-b Airway clearance of blood, vomitus, foreign body, etc, and preventing tongue from obstructing airway is essential. The airway is to be kept patent by an oropharyngeal, or nasopharyngeal airway, or endotracheal tube. If E.T. tube is impossible cricothyroidotomy, or tracheostomy is life- saving.
- 3-c Breathing is established by early recognition of lethal chest injuries like; open chest injuries, flail chest, massive haemothorax, tension pneumothorax, and cardiac tamponade. Supplemental O₂ is needed for all trauma victims. Mechanical ventilation should be started once indicated.
- 3-d CPR must be started for cases of cardiac arrest.
- 3-e Correction of circulatory disturbances in the shocked patient implies arrest of external bleeding, restoration of blood volume, and other resuscitation measures for shock management and cardiac arrest, besides the recognition and rapid management of internal haemorrhage.
- 3-f Monitoring especially of the circulation, respiration, and cerebral function is an integral part of the management of the severely injured.
- 3-h Once the immediate dangers to life are managed, one should thoroughly examine and investigate for all possible injuries. One should be highly suspicious of subtle injuries that may be missed in a polytrauma patient. Fully blown picture of these injuries may not be apparent at the start. Remember the guiding principle is the minimum adequate but the maximum safe.