Acute trauma management

Key Points
16.1 TRAUMA IN PERSPECTIVE

- Correct management within the first few hours after the injury is vital

- Your hospital should have a trauma system, to ensure that life-threatening conditions can be quickly identified and treated

- Hospital staff should be trained in acute trauma care, which requires effective teamwork

- Trauma prevention is the most important aspect of trauma care management.
16.1 TRAUMA IN PERSPECTIVE contd.

- Medical and nursing teams are in a unique position to educate patients and health workers about effective ways of preventing injury.

- The prevention of trauma is far the least expensive and most effective way of reducing the injuries and deaths caused by trauma.

- However long since the injury, trauma care must start immediately the patient arrives.

- If you do this, you can save lives and prevent complications and disability.
16.1 TRAUMA IN PERSPECTIVE
TRAUMA CARE SYSTEMS AND TRAINING

- Preventive strategies include:
  - Improvements in road safety
  - Better driver training
  - Pedestrian and cyclist awareness
  - Wearing of seat belts in cars or helmets for motorcyclists
  - Preventing drivers from drinking alcohol
  - Limiting civil and urban unrest.
16.2 PRINCIPLES OF PRIMARY TRAUMA CARE MANAGEMENT

Aims In Managing The Injured Patient

1. Examine, diagnose and treat life-threatening complications of trauma as soon as the patient arrives in the hospital.

2. Use the simplest treatment possible to stabilize the patient’s condition.

3. Perform a complete, thorough examination of the patient to ensure that no other injuries are missed.

4. Constantly reassess the patient for response to treatment; if the patient’s condition deteriorates, reassess the patient.

5. Start definitive treatment only after the patient is stable.

6. When definitive treatment is not available locally, have a plan for the safe transfer of the patient to another centre.
16.3 SIX PHASES OF PRIMARY TRAUMA CARE MANAGEMENT

**Figure 16.1**

- **Triage**
  - Primary survey
- **Resuscitation**
- **Secondary survey**
- **Stabilization**
- **Transfer**
- **Definitive care**

*Time*
16.3 SIX PHASES OF PRIMARY TRAUMA CARE MANAGEMENT

- The successful management of severe trauma is dependent on the following six steps.

1. Triage
2. Primary survey
3. Secondary survey
4. Stabilization
5. Transfer
6. Definitive care.
16.3 SIX PHASES OF PRIMARY TRAUMA CARE MANAGEMENT

The importance of ABCDE

- ABCDE is a simple way of remembering the essentials of the primary survey.

- Immediately treat any life-threatening problems, such as bleeding, pneumothorax or obstructed airway, that you find during the ABCDE primary survey.

- Less urgent problems, such as an arm fracture, must wait until the patient is stable; they will be picked up in the secondary survey and should be treated appropriately in the definitive care phase.
16.4 PROCEDURES

INSERTION OF CHEST DRAIN AND UNDERWATER SEAL DRAINAGE

Figure 16.2
Figure 16.3
Figure 16.4
Figure 16.5
Figure 16.6
Figure 16.7
Figure 16.8
Figure 16.9
Figure 16.10
16.4 PROCEDURES
Tracheostomy
16.4 PROCEDURES
Tracheostomy
Aftercare

• Aspirate secretions from the tracheobronchial tree regularly, using a sterile catheter passed down through the tracheostomy tube.

• Avoid irritating the bronchi, which could stimulate coughing.

• The air around the patient should be kept warm and humid by means of a humidifier. When necessary, instil small amounts of sterile physiological saline into the bronchi to soften the mucus.

• Change the inner tracheostomy tube at regular intervals. If the outer tube becomes dislodged, reinsert it immediately and check its position both by clinical examination and chest radiography.

• Always have a spare tube available.

• Refer the patient for further treatment, if necessary.
16.4 PROCEDURES

Complications

- Complications include:
  - Early postoperative bleeding
  - Infection
  - Surgical emphysema
  - Atelectasis
  - Crust formation
  - Stenosis of the trachea is a possible late complication.