



## Importance of team work in trauma simulation by ERC/ETC guidelines

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## Teaching goals

To understand:

- Trauma team organization and functioning
- Systematic approach to trauma patient
- How to recognize and treat life threatening injuries

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## European Trauma Course

Trauma patient management:  
Individual approach  
Team approach



ETC focuses on TEAM approach:

- Together
- Everyone
- Achieves
- More



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## European Trauma Course

Good team work consists out of **four** key elements:

1. Team functioning
2. Team management
3. Team organization and defining tasks
4. Team members

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## 1. Team functioning

- Recognition and management of life threatening and other injuries
- Ordering adequate diagnostic procedures and treatment
- Arranging transport of trauma patient



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## 2. Team management

- Orders and control
- Coordination
- Communication



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***Team leader doesn't have to be the oldest one in the team, but has to be the most experienced one.***



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## 3. Team organization and defining tasks

- Tasks must suit team member's competence
- Respecting and valuing each member's contribution
- Possibility to expand the roll of team member, if necessary



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***All team members have to be aware of their role and have to be competent to fulfill their tasks from beginning to the end.***



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## 4. Team members

Team size:

- Local possibilities
- Number of patients
- Local politics



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## European Trauma Course

Team is ready



Systematic approach to trauma patient

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## European Trauma Course

Management on the trauma scene:

- Basic ABC
- Primary management and resuscitation
- Beginning of secondary management



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## European Trauma Course

### Pre-hospital informations

- Time and mechanism of the accident
- Number, age and sex of the injured
- Identified injuries
- Treatment
- Vital signs



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## European Trauma Course

### Preparation:

- Protection
- Equipment check
- Assigning tasks



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## European Trauma Course

### Hospital admittance:

- Safe handling
- “Five second round”
- Information exchange from pre-hospital and hospital team



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## European Trauma Course

### **Primary management and resuscitation:**

***Treat all life threatening conditions immediately!***

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## Primary management and resuscitation

**A**irway  
**B**reathing  
**C**irculation  
**D**ysfunction  
**E**xposure



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## Airway with cervical spine control

- **Cleaning**
  - **Support**
    - Manual
    - Airway devices
    - Surgical
  - **Oxygen**
    - High flow
  - **Monitor**
    - SpO<sub>2</sub>
    - End tidal CO<sub>2</sub>
    - Airway volume and pressure
- .....with spine control



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## Breathing and ventilation

- Ventilation if breathing is inadequate
- Resolve immediately any life threatening conditions involving thorax



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## Breathing and ventilation

Five signs on the neck:

- Wounds
- Distended neck veins
- Position of trachea
- Subcutaneous emphysema
- Laryngeal crepitation



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## Breathing and ventilation

Five life threatening conditions:

- Tension pneumothorax
- Open chest wound
- Massive hemothorax
- Unstable chest wall
- Cardiac tamponade



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## Breathing and ventilation

### Inspection

- Frequency, breathing effort
- Symmetry
- Wounds

### Auscultation

- Midaxillary line
- Above and under the mammillary line

### Palpation

- Midaxillary line
- From the front

### Percussion

- Midaxillary line
- Above and under the mammillary line

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## Breathing and ventilation

### Intubated and ventilated:

- Endotracheal tube position
- Tidal volume
- Respiratory rate
- Peak inflation pressure
- End tidal CO<sub>2</sub>
- Oxygen saturation



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## Circulation and bleeding control

Stopping the hemorrhage:

- Direct pressure
- Immobilization
- Hemostasis and wound management

Pulse

Blood pressure

ECG

Signs of shock



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## Circulation and bleeding control

Shock severity – clinical signs of hypovolemic shock:

- Tachypnea, tachycardia
- Pale, cold skin, CRT>2 s
- Weak peripheral pulse, low diuresis
- Drop in systolic blood pressure (late sign)
- Consciousness impairment (very late sign)

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## Circulation and bleeding control

Shock management:

- IV/IO access
- Fluids
- Blood
- Platelets and clotting factors



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## Circulation and bleeding control

Hypotensive reanimation

- Uncontrolled internal bleeding
- The goal is appropriate tissue oxygenation without increased bleeding
- Systolic blood pressure goal → 80-90 mmHg

**Immediate surgical intervention!**

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## Circulation and bleeding control

Don't forget:

- Old age
- Medications/pacemaker
- Tissue damage
- Pregnancy
- Hypothermia



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## CNS assesment

- Fast neurological examination
  - AVPU scale
  - Pupils
- Mini-neurological examination
  - GCS
  - Pupils
  - Lateralization



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## Exposing the patient and environment

- Take the clothes off in order to examine the whole body
- Prevent hypothermia
- Remove spine immobilization board



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**Questions?**

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## Conclusion

- Trauma team organization and functioning
- Systematic approach to trauma patient
- How to recognize and treat life threatening injuries

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