



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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Trauma patient management:
Individual approach
Team approach



ETC focuses on TEAM approach:

- **T**ogether
- **E**veryone
- **A**chieves
- **M**ore



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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 role 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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Team is ready



Systematic approach to trauma patient

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Management on the trauma scene:

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



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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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Preparation:

- Protection
- Equipment check
- Assigning tasks



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Hospital admittance:

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



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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
 - SpO₂
 - End tidal CO₂
 - 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 crepitus



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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 mammary line

Palpation

- Midaxillary line
- From the front

Percussion

- Midaxillary line
- Above and under the mammary line

Breathing and ventilation

Intubated and ventilated:

- Endotracheal tube position
- Tidal volume
- Respiratory rate
- Peak inflation pressure
- End tidal CO₂
- 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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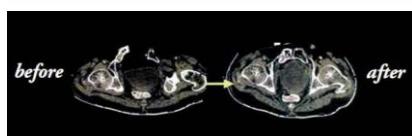
Circulation and bleeding control

Don't forget:

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



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CNS assessment

- 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



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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