INITIAL ASSESSMENT / Primary Survey

Scene Safety ⇨ Adjust measures accordingly
(Active threat? ⇨ Cover/Rescue)

Gut feeling!

Impression Consciousness (AVPU)/ critical?
SITREP: more casualties than personnel? ⇨ initial radio report

control **critical bleeding : Tourniquet!** Consider direct pressure on wound

Kinematics / MOI (if possible, avoid moving patient) **c-Spine? / pelvis?**

Airway

Inspect mouth and throat, clear if required
check **airway** ***(look, listen, feel)***

Unconscious: place **NPA or OPA** and establish **recovery position**
- re-evaluate airway
- if **apnea**: laryngeal or endotracheal tube or cricotomy • CPR if possible

Breathing

inspect larynx and jugular veins (shifted / distended?)
expose **thorax** and inspect entirely
- injuries/bleeding? ⇨ place chest seal on all thoracic wounds!

I nspect ⇨ CAVE: tension pneumothorax
(**A**uscultate) both lungs/ watch ⇨ thoracic movement synchronous?
Palpate thorax (respiratory excursions, stability, emphysema)
Check the back (back & buttocks) place mylar blanket / **litter**
- suspected **tension pneumothorax: immediate decompression**
(2. ICR MCL / 5. ICR AAL)
- re-check **airway** ⇨ CAVE MOI

Circulation

- Radial pulse quickly / alt. capillary refill time
- **Blood sweep** Head, arms, abdomen, pelvis, groin, legs (↗ urine? ↘ stool?)
⇨ check for further injuries

Stop bleeding! Tourniquet, pressure dressing, hemostyptics, pelvic binder
- count pulse frequency (15“) (regular/stable? Re-evaluate frequently)
- re-check **airway**

Disability

neurological **deficits**
- **AVPU** (Alert, Verbal, Pain, Unresponsive) / GCS
- **Pupils** round & isochoric? • consider quickly applicable **analgetics**

Exposure

Advanced measures and hypothermia prevention

All measures should be completed within 3 minutes!
Transport decision: critical patient = evacuation

Emergency call / 9 line report / radio report and **MIST**-AT
M (Mechanism of injury), **I** (Injuries), **S** (Symptoms), **T** (Treatment), A (Age of casualty), T (Time of injury)

 (> 5d) Version 01/2024

REASSESSMENT & treatment

(Only if delayed after initial) **Check** vital signs and **all** previous **measures**:

Check airway (protection) and respiration (frequency)
Auscultation of both lungs / thoracic movements synchronous?
Check chest seals/ **tension pneumothorax?** ⇨ repeat decompression
If available: apply oxygen + monitoring

Check pulses A. radialis (> 80mmHg = Recap < 2s), A. femoralis (> 70), A. carotis (> 60)
Check dressings
Check tourniquets (if possible, keep TQ time < 2h and **convert TQ to pressure dressing**)
i.v. line whenever possible, TXA / **fluids** if required (consider **i.o.**), if possible measure blood pressure

AVPU
Drugs ⇨ apply (**Analgetic) medication** (docu!) before further measures if necessary

RAPID TRAUMA ASSESSMENT / Secondary Survey

Further examination and treatment („from head to toe, treat as you go“):
⇨ **Immediate** treatment of **all** injuries detected!
(Evaluate patients reaction after every treatment. – e.g. breathing better/worse, pain?)

- **communication** with patient / **care**

Head
- **AVPU** (consider blood sugar)
- Check pupils: **PERRLA** (**p**upils **e**qual, **r**ound, **r**eact to **l**ight, **a**ccommodate)
- Inspect mouth, nose, ears (blood, cerebrospinal fluid?)
- Palpate of skull

Neck
- Inspect trachea (centered?) and jugular veins (distended?)
- Palpate c-spine – in case of deformity or pain ⇨ **cervical collar** + spineboard

Thorax
- Expose thorax entirely!
I nspection (marks; asymmetrical, paradoxical breathing etc.)
A uscultation of lungs and heart (anterior thorax, 3x both sides)
P ercussion (anterior thorax, 3x both sides)
P alpation (pain, instability, crepitation?)
C heck the back! (Open pants! Examine back and buttocks!)
- Inspection and palpation ⇨ Stability of spinal column
- At the latest now apply **mylar blanket** and **litter** before turning patient on back again!

Abdomen
- Inspection and palpation in four quadrants
- Pain? Kinematics? **If necessary** and possible, **apply pelvic binder**
Inspection of pelvis (**if palpation** ⇨ lateral first, then transversal, symphysis last) and genitals

Extremities legs ⇨ arms
- Remove/shift clothing during examination and treatment!
- Inspection and palpation (check passive mobility of joints as well)
- Check distal pulses and neurological status, **splint** fractures if necessary
MCS (**m**otor function, **c**irculation, **s**ensitivity)

- **i.v. / i.o line? Medication?** Measure blood pressure.
- **Documentation!** (consider + SAMPLER) continuous **reassessment including safety!**
- **Positioning** (lean forward position; shock position; abdominal decompression; recovery position)

Now, time consuming treatments can be implemented:
depending on situtation, material and level of training
- Application of **further medication** (e.g. antibiotics, antiemetics)
- Application of chest tubes if necessary (prior to MedEvac)
- Application of gastric tube/UC/wound management (Prolonged Casualty Care)

!! Prevent hypothermia during entire treatment !!

© TREMA (> 5d) Version 01/2024

INITIAL ASSESSMENT / Primary Survey
Scene Safety ⇨ Adjust measures accordingly
(Active threat? ⇨ Cover/Rescue)
Gut feeling!
Impression Consciousness (AVPU)/ critical?
SITREP: more casualties than personnel? ⇨ initial radio report
control critical bleeding : Tourniquet! Consider direct pressure on wound
Kinematics / MOI (if possible, avoid moving patient) c-Spine? / pelvis?
Airway
Inspect mouth and throat, clear if required
check airway (look, listen, feel)
Unconscious: place NPA or OPA and establish recovery position
• re-evaluate airway
• if apnea: laryngeal or endotracheal tube or cricotomy • CPR if possible
Breathing
inspect larynx and jugular veins (shifted / distended?)
expose thorax and inspect entirely
• injuries/bleeding? ⇨ place chest seal on all thoracic wounds!
Inspect ⇨ CAVE: tension pneumothorax
(Auscultate) both lungs/ watch ⇨ thoracic movement synchronous?
Palpate thorax (respiratory excursions, stability, emphysema)
Check the back (back & buttocks) place mylar blanket / litter
• suspected tension pneumothorax: immediate decompression
(2. ICR MCL / 5. ICR AAL)
• re-check airway ⇨ CAVE MOI
Circulation
• Radial pulse quickly / alt. capillary refill time
• Blood sweep Head, arms, abdomen, pelvis, groin, legs (↗ urine? ↘ stool?)
⇨ check for further injuries
Stop bleeding! Tourniquet, pressure dressing, hemostyptics, pelvic binder
• count pulse frequency (15“) (regular/stable? Re-evaluate frequently)
• re-check airway
Disability
neurological deficits
• AVPU (Alert, Verbal, Pain, Unresponsive) / GCS
• Pupils round & isochoric? • consider quickly applicable analgetics
Exposure
Advanced measures and hypothermia prevention
All measures should be completed within 3 minutes!
Transport decision: critical patient = evacuation
Emergency call / 9 line report / radio report and MIST-AT
M (Mechanism of injury), I (Injuries), S (Symptoms), T (Treatment), A (Age of casualty), T (Time of injury)
© TREMA (> 5d) Version 01/2024

REASSESSMENT & treatment
(Only if delayed after initial) Check vital signs and all previous measures:
Check airway (protection) and respiration (frequency)
Auscultation of both lungs / thoracic movements synchronous?
Check chest seals/ tension pneumothorax? ⇨ repeat decompression
If available: apply oxygen + monitoring
Check pulses A. radialis (> 80mmHg = Recap < 2s), A. femoralis (> 70), A. carotis (> 60)
Check dressings
Check tourniquets (if possible, keep TQ time < 2h and convert TQ to pressure dressing)
i.v. line whenever possible, TXA / fluids if required (consider i.o.), if possible measure blood pressure
AVPU
Drugs ⇨ apply (Analgetic) medication (docu!) before further measures if necessary
RAPID TRAUMA ASSESSMENT / Secondary Survey
Further examination and treatment („from head to toe, treat as you go“):
⇨ Immediate treatment of all injuries detected!
(Evaluate patients reaction after every treatment. – e.g. breathing better/worse, pain?)
• communication with patient / care
Head
• AVPU (consider blood sugar)
• Check pupils: PERRLA (pupils equal, round, react to light, accommodate)
• Inspect mouth, nose, ears (blood, cerebrospinal fluid?)
• Palpate of skull
Neck
• Inspect trachea (centered?) and jugular veins (distended?)
• Palpate c-spine – in case of deformity or pain ⇨ cervical collar + spineboard
Thorax
• Expose thorax entirely!
Inspection (marks; asymmetrical, paradoxical breathing etc.)
Auscultation of lungs and heart (anterior thorax, 3x both sides)
Percussion (anterior thorax, 3x both sides)
Palpation (pain, instability, crepitation?)
Check the back! (Open pants! Examine back and buttocks!)
• Inspection and palpation ⇨ Stability of spinal column
• At the latest now apply mylar blanket and litter before turning patient on back again!
Abdomen
• Inspection and palpation in four quadrants
• Pain? Kinematics? If necessary and possible, apply pelvic binder
Inspection of pelvis (if palpation ⇨ lateral first, then transversal, symphysis last) and genitals
Extremities legs ⇨ arms
• Remove/shift clothing during examination and treatment!
• Inspection and palpation (check passive mobility of joints as well)
• Check distal pulses and neurological status, splint fractures if necessary
MCS (motor function, circulation, sensitivity)
• i.v. / i.o line? Medication? Measure blood pressure.
• Documentation! (consider + SAMPLER) continuous reassessment including safety!
• Positioning (lean forward position; shock position; abdominal decompression; recovery position)
Now, time consuming treatments can be implemented:
depending on situtation, material and level of training
• Application of further medication (e.g. antibiotics, antiemetics)
• Application of chest tubes if necessary (prior to MedEvac)
• Application of gastric tube/UC/wound management (Prolonged Casualty Care)
!! Prevent hypothermia during entire treatment !!
© TREMA (> 5d) Version 01/2024