Wilderness First Aid
Reference Cards

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Abdominal Quadrants
(Looking at Patient)

RIGHT UPPER:
ANTERIOR:
GALL BLADDER
LIVER

POSTERIOR:
R. KIDNEY

RIGHT LOWER:
ANTERIOR:
APPENDIX

CENTRAL
AORTA
BLADDER

LEFT UPPER:
ANTERIOR:
STOMACH
Spleen

POSTERIOR:
PANCREAS
L. KIDNEY

Tenderness in a quadrant suggests potential injury to the organ indicated in the chart.

Pulse/Pressure Points

Airway Anatomy

Carotid
Brachial
Radial
Femoral
Posterior Tibial
Dorsalis Pedis

Nasal cavity
Oropharynx
Epiglottis
Esophagus
Trachea
Right bronchus
Left bronchus
Right lung
Left lung
### Patient Assessment System

<table>
<thead>
<tr>
<th>Scene Size-up</th>
<th>MOI</th>
</tr>
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<tbody>
<tr>
<td>Major trauma</td>
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<tr>
<td>Environmental</td>
<td></td>
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<tr>
<td>Medical</td>
<td></td>
</tr>
<tr>
<td>Safety/Danger</td>
<td>Move/rescue patient</td>
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<td>Body substance isolation</td>
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<td></td>
<td>Remove from heat/cold exposure</td>
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<tr>
<td></td>
<td>Consider safety of rescuers</td>
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<tr>
<td>Resources</td>
<td># Patients</td>
</tr>
<tr>
<td></td>
<td># Trained rescuers</td>
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<tr>
<td></td>
<td>Available equipment (incl. Pt’s)</td>
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</tbody>
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### BLS

- **Respiratory**
  - Air in and out
  - Adequate

- **Nervous**
  - AVPU
  - Protect spine/C-collar

- **Circulatory**
  - Pulse
  - Check for and Stop Severe Bleeding

**STOP → THINK:**
- **A** – Continue with detailed exam
- **VPU** – EVAC NOW

### SOAP Note Information (Focused Exam)

- **Pt. Information**
  - Physical (head to toe) exam: DCAP-BTLS, OPQRST
- **MOI**
  - Environmental conditions
- **Position pt. found**
  - Normal Vitals
- **Initial Px: ABCs, AVPU**
  - Pulse: 60-90
- **Initial Tx**
  - Respiration: 12-20, easy
  - Skin: Pink, warm, dry
- **SAMPLE**
  - Symptoms
  - Allergies
  - Medications
  - Past/pertinent Hx
  - Last oral intake
  - Event leading to incident
- **Evac level**
  - LOC: alert and oriented
  - Possible Px: Trauma, Environmental, Medical
  - Current Px
  - Anticipated Px
  - Field Tx
  - S/Sx to monitor

### Shock Assessment

- Hypovolemic – Low fluid (Tank)
- Cardiogenic – heart problem (Pump)
- Vascular – vessel problem (Hose)

**Volume Shock (VS) early/compensated**

- ↑ pulse
- Pale skin
- ↑↑ respiration rate
- Normal AVPU

**Volume Shock late/decompensated**

- ↑↑↑ pulse
- Pale skin
- ↑↑↑ respiration rate
- ↓ AVPU

**Comment:**

If a pulse drops but does not return to ‘normal’ (60-90 bpm) within 5-25 minutes, an elevated pulse is likely caused by VS and not ASR.

**Tx:** Stop visible bleeding, elevate legs, keep warm, manage psychological factors, ventilate if respirations are inadequate, give O₂ and IV fluids if available and appropriately trained.
## Acute Stress Reaction

### Sympathetic (fight or flight)
- ↑ pulse
- Pale skin
- ↑ respiration rate
- Normal AVPU
- Pain masking
- Looks like early VS (neumonic = SASR = Spin up)

### Parasympathetic (rest and digest)

- ↓ pulse
- Pale skin
- ↓ respiration rate
- May feel light headed, dizzy, nauseous, faint, anxious
  (neumonic = PASR = passout)

**Tx:** For either condition, calm patient and remove stressors as much as possible

## Head Injuries

### Concussion:
- Patient must be awake, cooperative, improving, and have amnesia.

**S/Sx**
- Patient is awake now
- Amnesia
- Can’t have S/Sx of ↑ ICP
- Nausea/vomiting (once) 2° to P-ASR
- Headache
- Tired

### ↑ ICP:
- S/Sx — early
  - Patient is A- or lower
  - C/O headache
  - Persistent vomiting
  - Ataxia
- S/Sx — late
  - Patient is VPU
  - Vomiting persists
  - Seizure
  - Coma
  - Cardiac and respiratory arrest

## Spine Ruling Out Process (WFR or WEMT)

**Patient must:**
- Be reliable
- Report no pain when focused on spine
- Report no tenderness when spine palpated
- Have normal motor exam
- Have normal sensory exam
- Report no shooting, tingling or electric “pain” radiating from extremities

**Motor Exam:** Compare strength in both hands and feet. Have pt. resist:
- Finger squeeze; pushing down on hand
- Push ‘gas pedal’; pull up on foot

**Sensory Exam:** compare pt’s ability to distinguish between pin prick and soft touch on back of hand and shin
- Use pin to prick
- Use cloth for soft touch

In cases where the spine can’t be ruled out but the injury can be localized to the lumbar area, consult medical direction regarding need to continue c-spine stabilization.

## Wound Cleaning

### Partial thickness:
- Soap and water wash
- Scrub to remove particles
- 10% P.I.
- Keep moist
- Dress lightly

### Full thickness, low to moderate risk:
- Clean within 2 hours of bleeding end
- Clean around area with 10% P.I.
- Pressure flush with drinkable water in short bursts along axis
- Bring edges toward (not touching) each other and hold in place with an occlusive dressing and/or steri-strips etc.

### Full thickness, high risk:
- Clean as previous, PLUS:
  - Remove dead skin and tissue
  - Remove foreign material
  - Finish flushing process with 1% P.I. solution (strong tea or amber beer)
  - Do not close in field
  - Pack with thin layers of gauze soaked in 1% P.I. Remove and repack bid
  - Dress with several layers of gauze. May place 10% P.I. between layers, but not directly on wound
  - Consider splinting if wound is over a joint.
### Common Causes of Pulse Changes

<table>
<thead>
<tr>
<th>Strong, Slow:</th>
<th>Strong, fast:</th>
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<tbody>
<tr>
<td>Normal sleep</td>
<td>Early heat stroke</td>
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<tr>
<td>Simple fainting</td>
<td>Fever</td>
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<tr>
<td>Early ↑ICP</td>
<td>Hyperthyroid</td>
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<tr>
<td>Well-conditioned athlete</td>
<td>Early shock</td>
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<tr>
<td>Hypothyroid</td>
<td>ASR</td>
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<tr>
<td>Strenuous physical activity</td>
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<table>
<thead>
<tr>
<th>Weak, slow:</th>
<th>Weak, fast:</th>
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<tbody>
<tr>
<td>Hypothermia</td>
<td>Overwhelming infection</td>
</tr>
<tr>
<td>Late ↑ICP</td>
<td>Late heat stroke</td>
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<table>
<thead>
<tr>
<th>Irregular:</th>
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<tr>
<td>Sinus arrhythmia</td>
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<td>Heart disease</td>
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<table>
<thead>
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<th>Weak, fast:</th>
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### Focused Survey Acronyms

**From Patient:**
- **SAMPLE** = Signs/Symptoms,
- Allergies, Medications,
- Previous Injury, Last Meal/Drink,
- Events

<table>
<thead>
<tr>
<th>Pt = Patient</th>
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<tbody>
<tr>
<td>Hx = History</td>
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<tr>
<td>Px = Problem</td>
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<tr>
<td>S/Sx = Signs/Symptoms</td>
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<tr>
<td>Tx = Treatment</td>
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</table>

**Observed by Rescuer:**
- **CMS** = Circulation, Motion, Sensation
- **OPQRST** = Onset, Provocation, Quality (dull, sharp), Radiation, Severity (1-10), Time
- **DCAP-BTLS** = Deformities, Contusions, Abrasions, Punctures/Penetrations, Burns/Bleeding, Tenderness, Lacerations, Swelling

### Hypothermia

- **98.6° to 90°:** Pt will be A to A-, shivering, have ↑urine output, ↓coordination and dexterity
- **<90°:** Pt will be V, P or U; shivering will stop; HR and respirations will decrease; Pt may appear dead

**Tx:**
- Active rewarming – give food (carbs first), liquids, remove from elements, exercise, shelter, layers, add external heat (heat packs or hot water bottles)

### Heat Related Symptoms

- If heat is identified as a potential MOI and patient exhibits irrational behavior:
  1) ALWAYS COOL PATIENT FIRST
  2) Assess hydration status
      - If dehydration is established, hydrate with electrolyte solution
      - If hx includes copious H₂O, give electrolytes only
  3) Complete focused survey
  4) Treat symptoms as indicated by survey; continue to support cooling mechanisms

**Heat exhaustion:**
- A- (irritable), temp. 99°-104°, pale

**Heat stroke (early):**
- A- (irritable, combative), temp. >105°, pale if dehydrated, flushed if hydrated

**Heat stroke (late):**
- V,P or U, seizures, coma, death

**Electrolyte Sickness:**
- A-, V, P or U; Hx of H₂O but no food; can rapidly progress to ↑ICP
## Patient SOAP Note

### Rescuer:

### Patient Information

<table>
<thead>
<tr>
<th>Name:</th>
<th>Age:</th>
<th>Weight:</th>
<th>Male</th>
<th>Female</th>
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<tr>
<th>Address:</th>
<th>Phone:</th>
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<th>Date:</th>
<th>Time:</th>
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<tr>
<th>Contact:</th>
<th>Phone:</th>
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</thead>
</table>

### Scene Size-Up:

- Major Trauma
- Environmental
- Medical

#### Describe MOI

#### Describe Environmental Conditions

### Subjective Information

#### Symptoms

- Describe onset, cause & severity (1-10) of chief complaints

<table>
<thead>
<tr>
<th>Time</th>
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#### Allergies

- Local or systemic, cause, severity & Tx

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<tr>
<th>Notes</th>
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</table>

#### Medications

- Rx, OTC, herbal, homeopathic & recreational

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<thead>
<tr>
<th>Drug</th>
<th>Reason</th>
<th>Dose</th>
<th>Current</th>
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<td></td>
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<td>Yes / No</td>
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<td>Yes / No</td>
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</tbody>
</table>

### Past relevant medical Hx

- relate to MOI

<table>
<thead>
<tr>
<th>Events</th>
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<tbody>
<tr>
<td>Amnesia</td>
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</table>

### Last food & fluids

- intake & output

<table>
<thead>
<tr>
<th>H₂O</th>
<th>Calorie</th>
<th>Electrolyte</th>
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<table>
<thead>
<tr>
<th>Urine color</th>
<th>Urine output</th>
<th>Stool</th>
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### Objective Information

**Physical Exam**

- Look for discoloration, swelling, abnormal fluid loss & deformity. Feel for tenderness, crepitus & instability. Check ROM and CSM.

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<thead>
<tr>
<th>Time</th>
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**Vital Signs**

- Get a baseline, then record changes

<table>
<thead>
<tr>
<th>Time</th>
<th>Pulse</th>
<th>Resp</th>
<th>BP</th>
<th>Skin</th>
<th>Temp</th>
<th>AVPU</th>
</tr>
</thead>
</table>
### Assessment = What you think is wrong

<table>
<thead>
<tr>
<th>Possible Pxs</th>
<th>Time</th>
<th>Current Pxs</th>
<th>Anticipated Pxs</th>
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<tbody>
<tr>
<td><strong>Trauma</strong></td>
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<tr>
<td>↑ ICP / Concussion</td>
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<tr>
<td>Respiratory Distress</td>
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<tr>
<td>Volume Shock</td>
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<tr>
<td>Unstable Spine</td>
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<td>Trunk Injury</td>
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<tr>
<td>Unstable Extremity</td>
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<tr>
<td>Injury</td>
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<tr>
<td>Wounds</td>
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<tr>
<td><strong>Environmental</strong></td>
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<tr>
<td>Dehydration / Low Na</td>
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<tr>
<td>Hypothermia / Cold</td>
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<tr>
<td>Heat Stroke / Exhaustion</td>
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<tr>
<td>Frostbite / Burns</td>
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<tr>
<td>Local / Systemic Toxin</td>
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<tr>
<td>Local / Systemic Allergy</td>
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<tr>
<td>Near Drowning</td>
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<tr>
<td>Acute Mountain Sickness</td>
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<td>Lightning Injuries</td>
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<td>SCUBA / Free Diving</td>
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<tr>
<td><strong>Medical S/Sx</strong></td>
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<td>Circulatory</td>
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<tr>
<td>Respiratory</td>
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<td>Nervous</td>
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<tr>
<td>Endocrine</td>
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<td>Genitourinary</td>
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<tr>
<td>Musculoskeletal</td>
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<tr>
<td>Skin / Soft Tissue</td>
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<tr>
<td>Ears/Eyes/Nose/Throat</td>
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<tr>
<td>Teeth / Gums</td>
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### Plan = what you are going to do

- Field Tx
- Monitor
- **Evacuation**
  - Level 1 2 3 4
  - GPS / Grid Coordinates
  - Request ALS: Yes / No
**Radio Report**

Base, this is ____________________ with ____________________
I have a ________ year old male/female whose chief complaint is:__________________________
___________________________________________________________
___________________________________________________________
as a result of:________________________________________________

Patient is currently A   V   P   U and was found Laying/Sitting/Standing on R/L/Front/Back side. Patient exam revealed _____________________
___________________________________________________________
___________________________________________________________
Spinal assessment revealed____________________________________
Patient states _______________________________________________
___________________________________________________________
Initial vitals were: HR:_____ RR:_____ Skin:_____ BP:_____
Current vitals are: HR:_____ RR:_____ Skin:_____ BP:_____
Treatments given are:_______________________________________
___________________________________________________________
Anticipated problems during transport are:______________________
___________________________________________________________
Evacuation priority is:  1   2   3   4
We require: Litter / More People / Helicopter / ALS / _________________
Our evacuation plan is ________________________________________
Our GPS coordinates are:______________________________________
LZ GPS coordinates are:______________________________________

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**Additional vitals**

<table>
<thead>
<tr>
<th>Time</th>
<th>Pulse</th>
<th>Resp</th>
<th>BP</th>
<th>Skin</th>
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