

# Medical Reference Cards

[github.com/alping/medical-reference-cards](https://github.com/alping/medical-reference-cards)

# C-ABCDE

## **C** Catastrophic bleeding / Cardiac arrest

### **A** Airways

- Check airway
  - Thorax movement
  - See, listen, feel
  - Paradox. breathing?
  - Stridor?
1. Chin lift/Jaw thrust
  2. Naso/Oropharyngeal airway
  3. Suction
  4. Laryngeal mask airway
  5. Intubation
  6. Coniotomy

### **B** Breathing

- Respiratory rate
  - Thorax movement
  - Auscultation
  - Cyanosis
1. Oxygen
  2. Ventilation
  3. Decompression
  4. Chest tube

### **C** Circulation

- Colour (Pale)
  - Cold/Sweaty
  - Pulse (Rad / Fem / Car)
  - Abdomen/Pelvis
1. Tilt bed
  2. Fluids (PVC, IO, CVC)
  3. Vasoactive drugs  
(Adrenalin IM)

### **D** Disability

- AVPU/GCS
  - Pupils
  - Movement of extrem.
1. Support ABC
  2. Glucose
  3. Antidote

### **E** Exposure

- Check whole body
  - Prevent hypothermia
  - Prevent further injury
1. Log roll
  2. Warm blankets
  3. Warm fluids

# SBAR

## **S** Situation

Own name, title, and unit  
Patients name, sex, and age  
Patients social security / identification number  
Describe situation briefly  
*I'm contacting you to...*

## **B** Background

Previous and current illness  
Relevant medical history  
Allergies  
Contagiousness

## **A** Assessment

A: Airway  
B: Breathing, saturation  
C: Heart rate, blood pressure  
D: Consciousness, pain, oriented to time / place / person  
E: Temperature, skin, colour, abdomen, urine production

**Brief assessment**

## **R** Recommendation

Immediate action (Care, monitoring, transfer, treatment)  
Further examinations (Radiology)  
Time frame (How often...? How long...? Next contact...?)

**Confirmation of communication**

*Questions / Agreement*

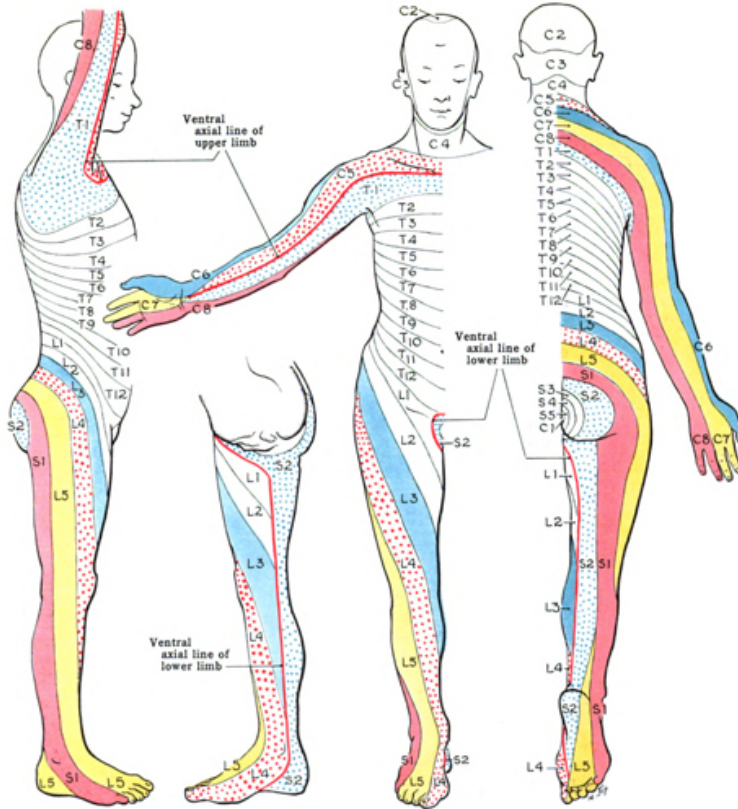
# Lab reference (Swe)

| Sys. | Component      | Subgroup          | Ref. interval | Unit   |
|------|----------------|-------------------|---------------|--------|
| P/S  | ALAT           | Male              | 0,15 – 1,1    | µkat/L |
|      |                | Female            | 0,15 – 0,75   | µkat/L |
| P/S  | ALP            |                   | 0,60 – 1,8    | µkat/L |
| P/S  | Amylas         |                   | 0,40 – 2,0    | µkat/L |
| P/S  | Albumin        | 18 – 40 y.        | 36 – 48       | g/L    |
|      |                | 41 – 70 y.        | 36 – 45       | g/L    |
|      |                | >70 y.            | 34 – 45       | g/L    |
| P/S  | ASAT           | Male              | 0,25 – 0,75   | µkat/L |
|      |                | Female            | 0,25 – 0,60   | µkat/L |
| P/S  | Bilirubin      |                   | 5 – 25        | µmol/L |
| P/S  | Calcium        |                   | 2,15 – 2,50   | mmol/L |
| P/S  | CK             | Male 18 – 50 y.   | 0,80 – 6,7    | µkat/L |
|      |                | Male >50 y.       | 0,70 – 4,7    | µkat/L |
|      |                | Female            | 0,60 – 3,5    | µkat/L |
| P/S  | Fosfat         | Female            | 0,80 – 1,5    | mmol/L |
|      |                | Male 18 – 50 y.   | 0,70 – 1,6    | mmol/L |
|      |                | Male >50 y.       | 0,75 – 1,4    | mmol/L |
| fP   | Glukos         |                   | 4,2 – 6,3     | mmol/L |
| P/S  | GT             | Male 18 – 40 y.   | 0,15 – 1,3    | µkat/L |
|      |                | Male >40 y.       | 0,20 – 1,9    | µkat/L |
|      |                | Female 18 – 40 y. | 0,15 – 0,75   | µkat/L |
|      |                | Female >40 y.     | 0,15 – 1,2    | µkat/L |
| P/S  | Järn           |                   | 9 – 34        | µmol/L |
| P/S  | Järnmättnad    | Male              | 0,15 – 0,60   |        |
|      |                | Female 18 – 50 y. | 0,10 – 0,50   |        |
|      |                | Female >50 y.     | 0,15 – 0,50   |        |
| P    | Kalium         |                   | 3,5 – 4,4     | mmol/L |
| S    | Kalium         |                   | 3,6 – 4,6     | mmol/L |
| P/S  | Kolesterol     | 18 – 30 y.        | 2,9 – 6,1     | mmol/L |
|      |                | 31 – 50 y.        | 3,3 – 6,9     | mmol/L |
|      |                | >50 y.            | 3,9 – 7,8     | mmol/L |
| P/S  | HDL-Kolesterol | Female            | 1,0 – 2,7     | mmol/L |
|      |                | Male              | 0,80 – 2,1    | mmol/L |

# Lab reference (Swe)

| Sys. | Component      | Subgroup          | Ref. interval | Unit   |
|------|----------------|-------------------|---------------|--------|
| P/S  | LDL-Kolesterol | 18 – 30 y.        | 1,2 – 4,3     | mmol/L |
|      |                | 31 – 50 y.        | 1,4 – 4,7     | mmol/L |
|      |                | >50 y.            | 2,0 – 5,3     | mmol/L |
| P/S  | Kreatinin      | Male              | 60 – 105      | µmol/L |
|      |                | Female            | 45 – 90       | µmol/L |
| P/S  | LD             | 18 – 70 y.        | 1,8 – 3,4     | µkat/L |
|      |                | >70 y.            | 1,9 – 4,2     | µkat/L |
| P/S  | Magnesium      |                   | 0,70 – 0,95   | mmol/L |
| P/S  | Natrium        |                   | 137 – 145     | mmol/L |
| P/S  | Pankreasamylas |                   | 0,15 – 1,10   | µkat/L |
| P/S  | Protein        |                   | 64 – 79       | g/L    |
| P/S  | TIBC           |                   | 47 – 80       | µmol/L |
| P/S  | Triglycerider  |                   | 0,45 – 2,6    | mmol/L |
| P/S  | Urat           | Male              | 230 – 480     | µmol/L |
|      |                | Female 18 – 50 y. | 155 – 350     | µmol/L |
|      |                | Female >50 y.     | 155 – 400     | µmol/L |
| P/S  | Urea           | Male 18 – 50 y.   | 3,2 – 8,1     | mmol/L |
|      |                | Male >50 y.       | 3,5 – 8,2     | mmol/L |
|      |                | Female 18 – 50 y. | 2,6 – 6,4     | mmol/L |
|      |                | Female >50 y.     | 3,1 – 7,9     | mmol/L |
| B    | Hemoglobin     | Female            | 117 – 153     | g/L    |
|      |                | Male              | 134 – 170     | g/L    |
| B    | EVF            | Female            | 0,350 – 0,458 |        |
|      |                | Male              | 0,393 – 0,501 |        |
| B    | Erytrocyter    | Female            | 3,94 – 5,16   | 1012/L |
|      |                | Male              | 4,25 – 5,71   | 1012/L |
| B    | MCV            |                   | 82 – 98       | fL     |
| Erc  | MCH            |                   | 27,1 – 33,3   | pg     |
| Erc  | MCHC           |                   | 317 – 357     | g/L    |
| B    | Leukocyter     |                   | 3,5 – 8,8     | 109/L  |
| B    | Trombocyter    | Female            | 165 – 387     | 109/L  |
|      |                | Male              | 145 – 348     | 109/L  |

# Dermatomes



# Myotomes

## Segment Function

|              |  |
|--------------|--|
| <b>C1/C2</b> | Neck flexion/extension                             |
| <b>C3</b>    | Neck lateral flexion                               |
| <b>C4</b>    | Shoulder elevation                                 |
| <b>C5</b>    | Shoulder abduction                                 |
| <b>C6</b>    | Elbow flexion/wrist extension                      |
| <b>C7</b>    | Elbow extension/wrist flexion                      |
| <b>C8</b>    | Finger flexion                                     |
| <b>T1</b>    | Finger abduction                                   |
| <b>L2</b>    | Hip flexion  |
| <b>L3</b>    | Knee extension                                     |
| <b>L4</b>    | Ankle dorsi-flexion                                |
| <b>L5</b>    | Great toe extension                                |
| <b>S1</b>    | Ankle plantar-flexion/ankle eversion/hip extension |
| <b>S2</b>    | Knee flexion                                       |
| <b>S3-S4</b> | Anal wink  |

# Neurological exam.

## The whole time

Psychiatric: Wakefulness, oriented to time/place/self  
 Motor: Facial expressions, general  
 Dysarthria, dysphasia, right or left handed  
 Higher cortical functions: Apraxia, spatial function, neglect

## Standing

Walk across the room  
 Walk on toes/heels  
 Squat and rise  
 Sight and hearing

## Sitting

Face: Symmetry, ptosis, corneal reflex  
 Pupils: Size, reaction to light  
 Eye movements: Nystagmus, diplopia  
 Sight: Donder's test  
 Mouth and throat: Symmetry, swallow reflex, gingival hyperplasia, cranial nerve XII  
 Sensibility to light touch, vibration, temperature, and pain  
 Motoric function for cranial nerve V, VII, XI  
 Reflexes in arms and legs  
 Grasset's test  
 Auscultation of lungs  
 Palpate lymph nodes  
 (Smell and taste)

## Lying down

Neck stiffness  
 Muscle strength: proximal + distal, in arms and legs  
 Muscle tone, atrophies, fasciculation, tremor,  
 Heel-knee test  
 Dysdiadochokinesis  
 Abdominal reflexes  
 Barré's test  
 Babinski's sign  
 Fundus examination  
 (Primitive reflexes: Grasping reflex, palmomental, glabellar, sucking)

# Glasgow Coma Scale

|                      | Response                            | Score |
|----------------------|-------------------------------------|-------|
| Eye opening response | Spontaneously                       | 4     |
|                      | To speech                           | 3     |
|                      | To pain                             | 2     |
|                      | No response                         | 1     |
| Best verbal response | Oriented to time, place, and person | 5     |
|                      | Confused                            | 4     |
|                      | Inappropriate words                 | 3     |
|                      | Incomprehensible sounds             | 2     |
|                      | No response                         | 1     |
| Best motor response  | Obeys commands                      | 6     |
|                      | Moves to localized pain             | 5     |
|                      | Flexion withdrawal from pain        | 4     |
|                      | Abnormal flexion (decorticate)      | 3     |
|                      | Abnormal extension (decerebrate)    | 2     |
| Total score          | No response                         | 1     |
|                      | Best response                       | 15    |
|                      | Comatose patient                    | ≤8    |
|                      | Totally unresponsive                | 3     |

# Ottawa Ankle Rule

## 1) Pain around the malleolus AND

- Palpation tenderness over the dorsal ridge of the lateral or medial malleus.

OR

- Inability of the foot to support four steps.

## 2) Pain around the mid part of the foot AND

- Palpation tenderness over the base of the 5<sup>th</sup> metatarsal bone OR the Navicular bone.

OR

- Inability of the foot to support four steps.

**X-ray of foot and lower leg if 1 or 2 are met**

**Otherwise:** Elastic wrap, tape, possibly orthosis, information (proprioceptive exercise e.g. stand on one leg while brushing teeth)

**Acute care: PRICE** (Protection, Rest, Ice, Compression, Elevation)

*Only applicable on adults (>18 years) with isolated injury*

# DVT Score

| Sign   | Point |
|--|-------|
| Active cancer last 6 months                            | 1p    |
| Paralysis, paresis, newly casted                       | 1p    |
| Immobilized >3d or large surgery last 4w               | 1p    |
| Localized tenderness along the deep venous system      | 1p    |
| Whole leg swelling                                     | 1p    |
| Calf circumference >3 cm compared to asymptomatic side | 1p    |
| Pitting oedema on symptomatic side                     | 1p    |
| Collateral flow in superficial veins (non-varicose)    | 1p    |
| Similar likelihood of alternative diagnosis            | -2p   |

Low points <2 + negative D-dimer  
= low probability for DVT

High points ≥2 → Ultrasound whole leg

*Risk of false negative D-dimer when  
symptoms >1w or anticoagulation therapy*

# Normal Physiology

| Age             | RR (/min) | HR (/min) | SBP (mmHG) |
|-----------------|-----------|-----------|------------|
| <b>0-1 m</b>    | 30-60     | 110-160   | 65-90      |
| <b>1-12 m</b>   | 30-40     | 110-160   | 70-90      |
| <b>1-2 y</b>    | 25-35     | 100-150   | 85-35      |
| <b>2-5 y</b>    | 25-30     | 95-140    | 80-110     |
| <b>5-12 y</b>   | 20-25     | 80-120    | 90-110     |
| <b>&gt;12 y</b> | 15-20     | 60-100    | 100-120    |

| Age         | ♀ W. (kg) | ♀ H. (cm) | ♂ W. (kg) | ♂ H. (cm) |
|-------------|-----------|-----------|-----------|-----------|
| <b>0 m</b>  | 2.8-4.2   | 46-54     | 2.9-4.4   | 47-55     |
| <b>3 m</b>  | 4.6-7     | 56-64     | 4.8-7.5   | 57-66     |
| <b>6 m</b>  | 6-9.3     | 62-71     | 6.4-10    | 63-73     |
| <b>1 y</b>  | 8-12      | 70-80     | 8.5-13    | 71-82     |
| <b>5 y</b>  | 15-25     | 102-120   | 15.5-25   | 110-112   |
| <b>18 y</b> | 46-80     | 156-180   | 55-94     | 167-194   |

| Age (m)              | 1-2 | 2-4 | 4-6 | 6-8 | 8-10 | 10-12 |
|----------------------|-----|-----|-----|-----|------|-------|
| <b>W. gain (g/w)</b> | 175 | 150 | 125 | 100 | 75   | 50    |

| W. (kg)       | Fluids (ml/kg/24h) | A. (y)                     | ml/kg/hour |
|---------------|--------------------|----------------------------|------------|
| <b>2-8</b>    | 150                | <b>0-1</b>                 | 2-4        |
| <b>6-10</b>   | 115-120            | <b>&gt;1</b>               | 1-2        |
| <b>0-10</b>   | 100                | <b>▲ Urine / Oliguri ▼</b> |            |
| <b>10-20</b>  | 50                 | <b>0-1</b>                 | <1         |
| <b>&gt;20</b> | 20                 | <b>&gt;1</b>               | <0.5       |

Holiday-Segar

# Normal Physiology

| Months        | Gross motor                                   | Fine motor                                       | Cogn. & Comm.  |
|---------------|---|--|--|
| <b>1-2</b>    | Lift head when prone                          | -  | Smile in resp. to face/voice, visual preference for human face   |
| <b>2-3</b>    | Head steady in sitting                        | -  | -  |
| <b>3-4</b>    | Lift head & chest w. ext. arms                | Grasp rattle                                     | Sustain contact, displeasure if soc. contact broken, "aah, ngah" |
| <b>5-6</b>    | Roll over                                     | Transfer objects hand to hand                    | Monosyllabic babble  |
| <b>6-7</b>    | Sit with support                              | -  | Polysyllabic babble, vowel sounds, enjoys mirrors                |
| <b>7-8</b>    | Sit without support, crawl                    | Thumb-finger grasp                               | Suspicious/afraid of strangers                                   |
| <b>9-10</b>   | Pull to standing pos., walk holding furniture | Pincer grip, bang objects together.              | Play peek-a-boo, wave bye-bye, respond to own name               |
| <b>12-18</b>  | Walk alone                                    | Turn pages in book, scribble, build 2-cube tower | Speak a few words  |
| <b>4 yrs.</b> | Walk on a straight line, jump on one leg      | Button clothes                                   | Answer questions, understand prepositions                        |