

ABCDE

# We'll talk about...



- When is the ABCDE approach helpful?
- ABCDE
- Normal vital parameters of children
- Cases

# When do we use the ABCDE approach?



- Recognition of a critically ill child
  
- sssABCDE
  - ▣ Safety
  - ▣ Stimulate – Response?
  - ▣ Shout for help
  
- TREAT FIRST WHAT KILLS FIRST!

# A - Airway

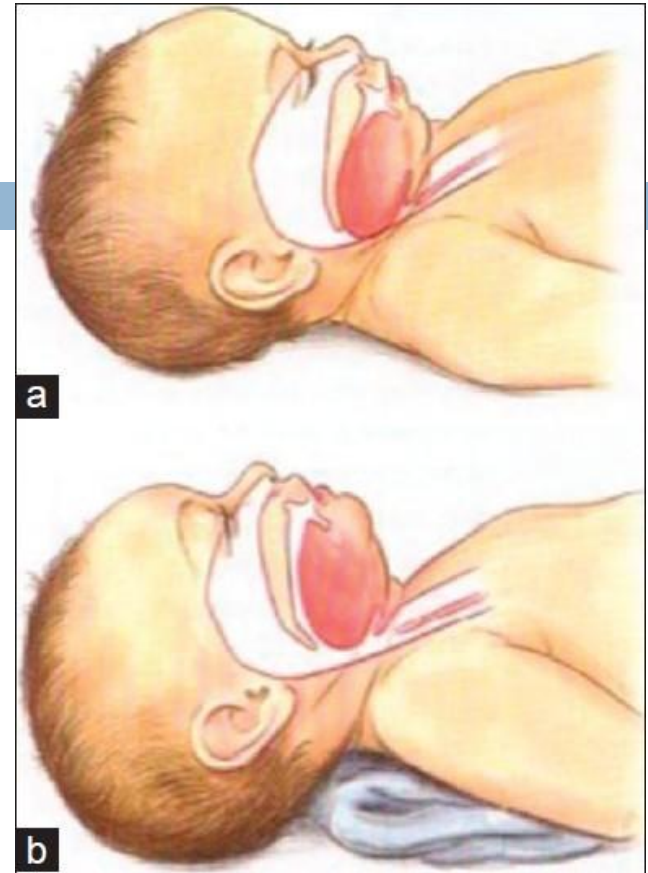
1. Safe?
2. At risk?
3. Obstructed?

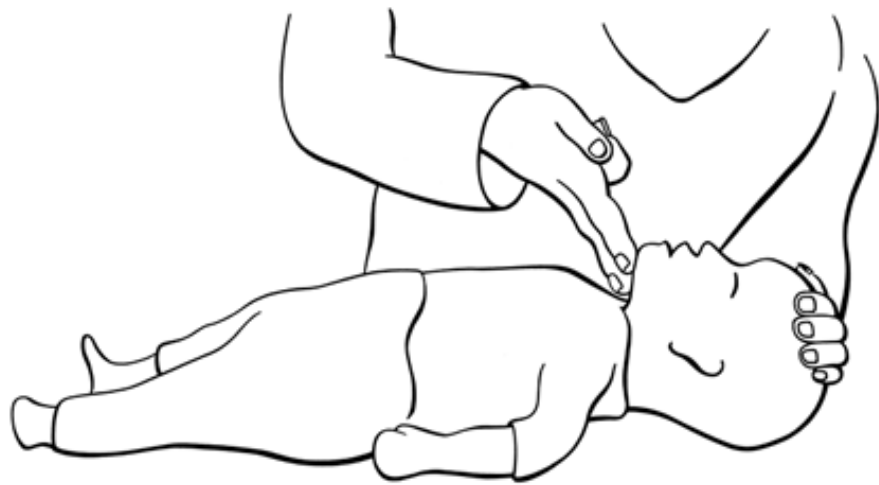
Look, listen, feel

Anatomic features in babies

Position- head tilt, chin lift

**CHEST MOVEMENT DOES NOT MEAN CLEAR AIRWAY**





# B - breathing

1. Respiratory rate
2. Work of breathing
  - Intercostal retractions, nasal flare, paradox chest movement – respiratory distress
  - Decrease of respiratory effort
3. Tidal volume
  - Chest expansion, breathing sounds, symmetry
4. Oxygenation
  - Cyanosis, pallor, SpO<sub>2</sub>

# C - circulation

1. Heart Rate
  2. Pulse volume
    - Central/distal pulses
  3. Peripheral Perfusion
    - CRT, skin temperature- line of coldness, skin color
  4. Blood Pressure
  5. Preload
    - Jugular veins turgescence, edge of the liver, moist rales in the lungs
- (+1 Renal perfusion: Urine output)

# D - Disability

- Evaluate mental status
- AVPU
- GCS

| Table II: Glasgow Coma Score or PGCS |                              |  |                       |
|--------------------------------------|------------------------------|--|-----------------------|
|                                      | Infant <1 yr                 | Child 1-4yrs                             | Age 4-Adult           |
| EYES                                 |                              |  |                       |
| 4                                    | Open                         | Open                                     | Open                  |
| 3                                    | To voice                     | To voice                                 | To voice              |
| 2                                    | To pain                      | To pain                                  | To pain               |
| 1                                    | No response                  | No response                              | No response           |
| VERBAL                               |                              |  |                       |
| 5                                    | Coos, babbles                | Oriented, speaks, interacts, social      | Oriented and alert    |
| 4                                    | Irritable cry, consolable    | Confused speech, disoriented, consolable | Disoriented           |
| 3                                    | Cries persistently to pain   | Inappropriate words, inconsolable        | Nonsensical speech    |
| 2                                    | Moans to pain                | Incomprehensible, agitated               | Moans, unintelligible |
| 1                                    | No response                  | No response                              | No response           |
| MOTOR                                |                              |  |                       |
| 6                                    | Normal, spontaneous movement | Normal, spontaneous movement             | Follows commands      |
| 5                                    | Withdraws to touch           | Localizes pain                           | Localizes pain        |
| 4                                    | Withdraws to pain            | Withdraws to pain                        | Withdraws to pain     |
| 3                                    | Decorticate flexion          | Decorticate flexion                      | Decorticate flexion   |
| 2                                    | Decerebrate extension        | Decerebrate extension                    | Decerebrate extension |
| 1                                    | No response                  | No response                              | No response           |



# E - Everything else

- Environment

- SAMPLE

- S - Signs/Symptoms
- A - Allergies
- M - Medications
- P - Past medical history
- L - Last meal
- E - Events Leading Up To Present Illness

ANY  
QUESTIONS  
?

# Normal values

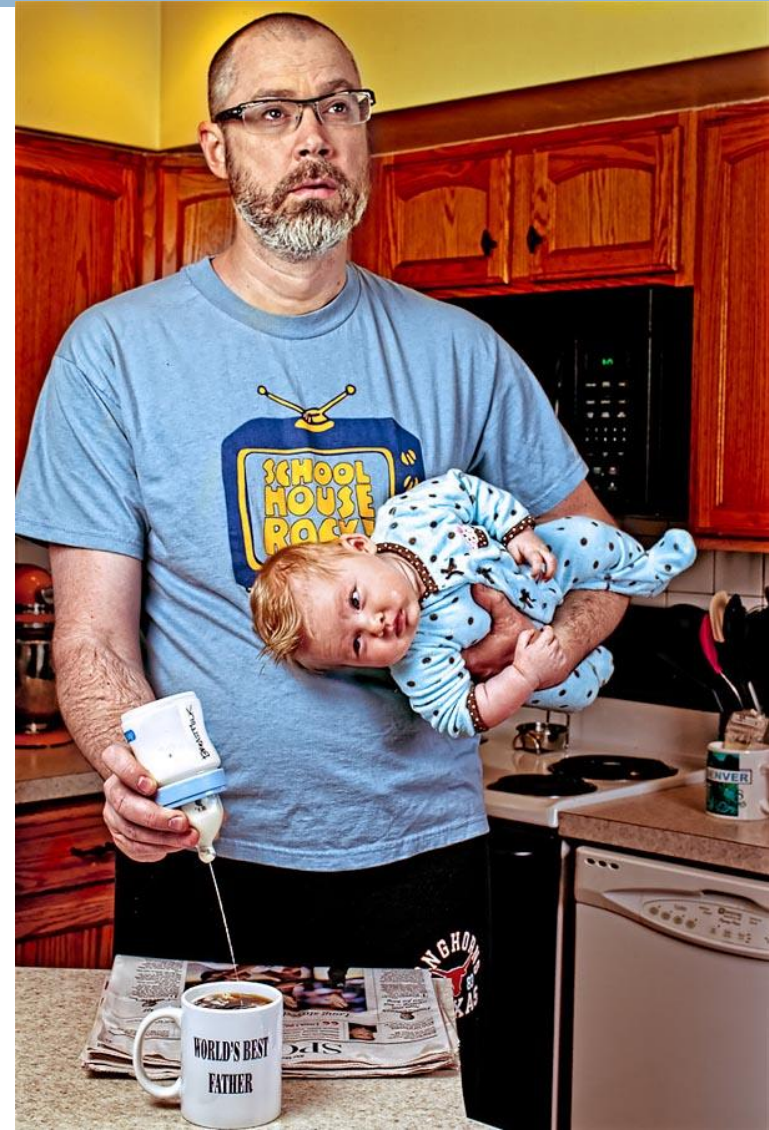
|                               |   |
|-------------------------------|---|
| <b>Body weight estimation</b> | <b><math>(\text{age}+4) \times 2</math></b> |
|-------------------------------|---|

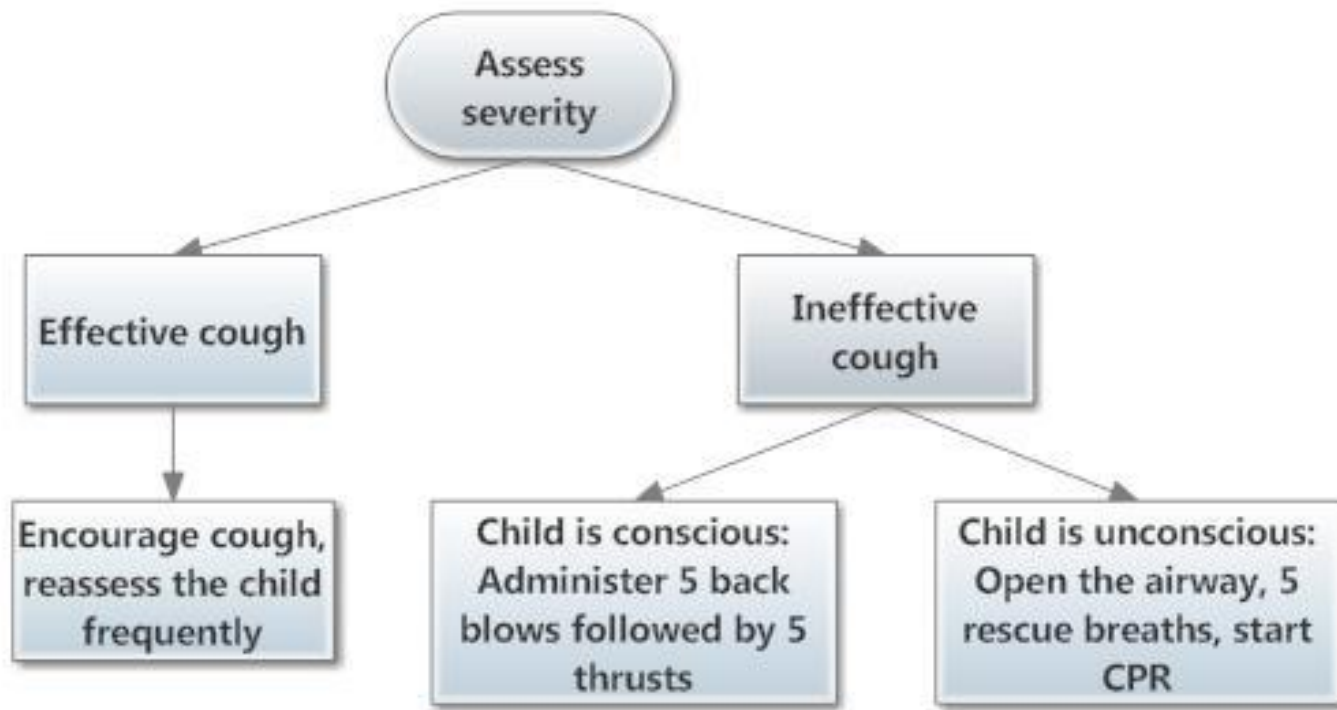
| <b>Normal values</b>                     | <b>neonate</b> | <b>1-5 yrs</b>                               | <b>6-14 yrs</b> | <b>adult</b> |
|--|----------------|--|-----------------|--------------|
| <b>Respiratory rate</b>                  | <b>30</b>      | <b>25</b>                                    | <b>15-20</b>    | <b>12</b>    |
| <b>Heart rate</b>                        | <b>130</b>     | <b>100</b>                                   | <b>80-100</b>   | <b>70</b>    |
| <b>Systolic blood pressure (minimum)</b> | <b>60</b>      | <b><math>70+(2 \times \text{age})</math></b> |                 | <b>90</b>    |

|                              |  |
|------------------------------|--|
| <b>Fluid bolus</b>           | <b>20 ml/kg</b>                        |
| <b>Adrenalin dose</b>        | <b>0,1 ml/kg from 1:10000 solution</b> |
| <b>Defibrillation energy</b> | <b>4 J/kg</b>                          |
| <b>Cardioversion energy</b>  | <b>1-2 J/kg</b>                        |

# Case 1.

- 6 months old baby, acute dyspnoea when watching a football game with his dad. (They ate m&m's)
- A ?







# Case 2.

- 15 month old baby with fever, worsening dyspnoe.
- A : crying
- B : Resp. rate: 42/min, Increased breathing work, obstructive lung sounds, prolonged exhaling, SpO<sub>2</sub>: 87%
- Any intervention needed?



# Case 2.



- 15 month old baby with low fever, worsening dyspnoe.  
REASSESS!
- A : still crying
- B : Resp. rate: 40/min, Increased breathing work, obstructive lung sounds, prolonged exhaling, SpO<sub>2</sub>: 96%
- C : HR: 182/min (good peripheral pulse), BP: 78/40 Hgmm, CRT: 4 sec, cold hands, empty jugular veins
- Any intervention needed?
- Why do we have a C-problem? What is your diagnosis?

# Case 3.

- 5-year-old, diarrhoea for 4 days, general malaise, started to vomit this day.
- A : speaks to you
- B : Resp. rate: 28/min, Nasal flaring, normal lung sounds, SpO<sub>2</sub>: 99%
- C : HR: 152/min (weak peripheral pulse), BP: 80/32 Hgmm, CRT: 4 sec, cold hands, empty jugular veins, no urine for 15 hours.
- Do we have a B-problem?
- Any intervention needed? What do you do after an intervention?





# Take-home message

- Use ABCDE in critical situations
- sssABCDE:
  - ▣ 3,4,5 questions
- Reevaluation
- TREAT FIRST WHAT KILLS FIRST!