The ABCDE and SAMPLE History Approach

Basic Emergency Care Course
Objectives

- List the hazards that must be considered when approaching an ill or injured person
- List the elements to approaching an ill or injured person safely
- List the components of the systematic ABCDE approach to emergency patients
- Assess an airway
- Explain when to use airway devices
- Explain when advanced airway management is needed
- Assess breathing
- Explain when to assist breathing
- Assess fluid status (circulation)
- Provide appropriate fluid resuscitation
- Describe the critical ABCDE actions
- List the elements of a SAMPLE history
- Perform a relevant SAMPLE history.
Essential skills

- Assessing ABCDE
- Cervical spine immobilization
- Full spine immobilization
- Head-tilt and chin-life/jaw thrust
- Airway suctioning
- Management of choking
- Recovery position
- Nasopharyngeal (NPA) and oropharyngeal airway (OPA) placement
- Bag-valve-mask ventilation
- Skin pinch test
- AVPU (alert, voice, pain, unresponsive) assessment
- Glucose administration

- Needle-decompression for tension pneumothorax
- Three-sided dressing for chest wound
- Intravenous (IV) line placement
- IV fluid resuscitation
- Direct pressure/ deep wound packing for haemorrhage control
- Tourniquet for haemorrhage control
- Pelvic binding
- Wound management
- Fracture immobilization
- Snake bite management
Why the ABCDE approach?

• Approach every patient in a systematic way
• Recognize life-threatening conditions early
• DO most critical interventions first - fix problems before moving on
• The ABCDE approach is very quick in a stable patient

Goals:
• Identify life-threatening conditions rapidly
• Ensure the airway stays open
• Ensure breathing and circulation are adequate to deliver oxygen to the body
What is a SAMPLE history?

• Categories of questions to obtain a patient’s history
  • Signs and Symptoms
  • Allergies
  • Medications
  • Past medical history
  • Last oral intake
  • Events
• Immediately follows the ABCDE approach
• Allows providers to easily communicate

Goal:
• Rapidly gather history critical to the management of the acutely ill patient
ABCDE: Initial Approach

• The most important step is to stay safe!
• Scene safety
  • Fire
  • Motor vehicle crash
  • Building collapse
  • Chemical spill
  • Violence
  • Infections disease
• Personal Protective equipment
  • Gloves
  • Gown
  • Mask
  • Goggles
  • Hand washing
Safety considerations

• Scene safety
  • Scene hazards
  • Violence
  • Infectious disease risk

• Use personal protective equipment
  • Consider appropriate PPE for situation
  • Gloves, eye protection, gown and mask

• Cleaning and decontamination
  • Use PPE and wash your hands before and after every patient contact (or alcohol gel cleanser)
  • Clean/disinfect surfaces
  • Refer to local decontamination protocols for chemical exposures

• Ask for help early
  • Multiple patients
  • Make arrangements if transfer is needed
  • Know who to call for infectious outbreaks or hazardous exposures
Workbook Question 1: Safety

A person walks into your health post vomiting, bleeding from the mouth and complaining of abdominal pain

Describe what is needed to safely approach this patient:
ABCDE Approach: Elements

- **Airway with cervical spine immobilization:**
  - **Check** for obstruction
  - If trauma-immobilize cervical spine

- **Breathing plus oxygen if needed:**
  - Ensure adequate movement of air into the lungs

- **Circulation with bleeding control and IV fluids**
  - Determine if there is adequate perfusion
  - **Check** for life-threatening bleeding
ABCDE Approach: Elements

- **Disability**: AVPU/GCS, pupils and glucose
  - Assess and protect brain and spinal functions

- **Exposure and keep warm**
  - Identify all injuries and environmental threats
  - Avoid hypothermia

This stepwise approach is designed to ensure that life-threatening conditions are identified and treated early, in order of priority.

A problem discovered (A-B-C-D-E) must be addressed immediately before moving on to the next step.
REMEMBER...

Always check for signs of trauma in each of the ABCDE sections, and reference the trauma module as needed.
Airway Assessment

Can the patient talk normally?

- Yes: The airway is open, continue ABCDEs
- No: Can the patient talk at all?

Can the patient talk at all?

- Yes, but not normally: Look for abnormal sounds suggesting obstruction, look and listen for fluid in the airway, look for foreign body, swelling around the airway or altered mental status, check that the patient is able to swallow saliva
- No: Look to see if the chest wall is moving in and out, listen for air movement from the mouth and nose
Airway Management

• If the patient is unconscious and not breathing normally:
  • If no concern for trauma: open airway using HEAD-TILT/CHIN-LIFT manoeuvre
  • If trauma suspected: maintain c-spine immobilization and use JAW-THRUST manoeuvre

• Consider placing an AIRWAY DEVICE to keep the airway open
  • Oropharyngeal airway
  • Nasopharyngeal airway
Airway Management: Choking

- If foreign body is suspected:
  - Visible foreign body: carefully REMOVE IT
  - If the patient is able to cough or make noise, keep the patient calm
    - ENCOURAGE to cough
  - If the patient is choking (unable to cough/make sounds) use age-appropriate CHEST THRUSTS/ABDOMINAL THRUSTS/ BACK BLOWS
  - If the patient becomes unconscious while choking: follow CPR PROTOCOLS

- Chest thrust in adult
- Abdominal thrust in late pregnancy
- Back blows in infant
- Chest thrust in infant
Airway Management:

• If secretions are present:
  • SUCTION airway or wipe clean
  • Consider RECOVERY POSITION if the rest of the ABCDE is normal and no trauma

• If the patient has swelling, hives, or stridor, consider a severe allergic reaction (anaphylaxis)
  • Give intramuscular ADRENALINE

• Allow patient to stay in position of comfort

• Prepare for HANDOVER/TRANSFER to a center capable of advanced airway management
QUESTIONS?

Airway
Breathing: Assessment

• **Look, listen** and **feel** to see if the patient is breathing
• **Assess** if the breathing is **very fast, very slow or very shallow**
• **Look** for increased work of breathing
  • *Accessory muscle work*
  • *Chest indrawing*
  • *Nasal flaring*
  • *Abnormal chest wall movement*
• **Listen** for abnormal breath sounds
• **REMEMBER** with severe wheezes there may be no audible breath sounds because of **severe airway narrowing**
Breathing: Assessment

- **Listen** to see if breath sounds are equal
- **Check** for the absence of breath sounds on one side
  - If *dull sound* with percussion to the same side
    - **THINK** large pleural effusion or haemothroax
  - If also *hypotension, distended neck veins or tracheal shift*
    - **THINK** tension pneumothorax
- **Check** oxygen saturation
Breathing: Management

- If unconscious with abnormal breathing, perform BAG-VALVE-MASK-VENTILATION with OXYGEN and follow CPR PROTOCOLS
- If not breathing adequately (too slow or too shallow) begin BAG-VALVE-MASK-VENTILATION with OXYGEN
  - If oxygen is not immediately available, do not delay ventilation
  - Plan for immediate TRANSFER for airway management
- If breathing fast or hypoxia, give OXYGEN
- If wheezing, give SALBUTAMOL
- If concern for anaphylaxis, give intramuscular ADRENALINE
- If concern for tension pneumothorax, perform NEEDLE DECOMPRESSION, give OXYGEN, give IV FLUIDS
  - Plan for immediate transfer for chest tube
- If concern for pleural effusion, haemothorax, give OXYGEN
  - Plan for immediate transfer for chest tube
- If cause unknown, consider trauma
Breathing

QUESTIONS?
Circulation: Assessment

- **Look, listen** and **feel** for signs of poor perfusion
  - Cool, moist extremities
  - Delayed capillary refill
  - Diaphoresis
  - Low blood pressure
  - Tachypnoea
  - Tachycardia
  - Absent pulses
Circulation: Assessment

- **Look** for internal and external signs of bleeding
  - Chest
  - Abdomen
  - From stomach or intestines
  - Pelvic fracture
  - Femur Fracture
  - From wounds
- **Check** for pericardial tamponade
  - *Hypotension*
  - *Distended neck veins*
  - *Muffled heart sounds*
- **Check** blood pressure
Circulation: Management

• For cardiopulmonary arrest follow relevant CPR PROTOCOLS
• If poor perfusion: GIVE IV FLUIDS
  • If external bleeding: APPLY DIRECT PRESSURE
  • If internal bleeding or pericardial tamponade, REFER to centre with surgical capabilities
• If unknown cause, remember trauma
  • Apply BINDER for pelvic fracture or SPLINT for femur fracture with compromised blood flow
Disability: Assessment

• **Assess** level of consciousness
  • AVPU or GCS in trauma
• **Check** for low blood glucose (hypoglycaemia)
• **Check** pupils (size, reactivity to light and if equal)
• **Check** movement and sensation in all four limbs
• **Look** for abnormal repetitive movements or shaking
  • Seizures/convulsions
Disability: Management

- If altered mental status, no trauma, ABCDEs otherwise normal
  - place in RECOVERY POSITION
- If altered mental status, low glucose (<3.5mmol/L) or if unable to check glucose
  - Give GLUCOSE
- If actively seizing
  - Give BENZODIAZEPINE
- If pregnant and seizing
  - Give MAGNESIUM SULPHATE
Disability: Management

- If *small pupils* and slow breathing, consider opioid overdose
  - Give NALOXONE
- If *unequal pupils*, consider increased pressure in the brain
  - RAISE HEAD OF BED 30 DEGREES if no concern for spinal injury
  - Plan for early TRANSFER/REFERRAL
- If unknown cause of altered mental status, consider trauma
  - IMMobilize the cervical spine
QUESTIONS?
Exposure: Assessment

• **Examine** the entire body for hidden injuries, rashes, bites or other lesions
  
  • *Rashes*, such as hives, can indicate an allergic reaction
  • Other rashes can indicate infection
Exposure: Management

- If snake bite is suspected
  - IMMobilize the extremity
  - Take a picture of the snake (if possible) to send to referral hospital
- General exposure considerations
  - REMOVE constricting clothing and jewelry
  - COVER the patient to prevent hypothermia
    - Acutely ill patients may be unable to regulate body temperature
  - PREVENT hypothermia
    - Remove wet clothing and dry patient thoroughly
  - Respect the patient’s modesty
- If cause unknown, remember trauma
  - LOG ROLL for suspected spinal cord injury
Exposure

QUESTIONS?
<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Obstruction: foreign body</td>
<td>• Tension pneumothorax</td>
<td>• Pulselessness</td>
<td>• Hypoglycaemia</td>
<td>• Snake bite</td>
</tr>
<tr>
<td></td>
<td>• Obstruction: burns</td>
<td>• Opiate overdose</td>
<td>• Shock</td>
<td>• Increased pressure on the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Obstruction: anaphylaxis</td>
<td>• Asthma/COPD</td>
<td>• Severe bleeding</td>
<td>• brain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Obstruction: trauma</td>
<td>• Large pleural effusion/haemothorax</td>
<td>• Pericardial Tamponade</td>
<td>• Seizures/convulsions</td>
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</table>

**In-Depth, Acute, Life-Threatening Conditions**
Airway Obstruction: Foreign Body

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Visible secretions, vomit or foreign body</td>
<td>• REMOVE or SUCTION visible foreign body/fluid if possible</td>
</tr>
<tr>
<td>• Abnormal sounds from airway</td>
<td>• Do not push further into airway</td>
</tr>
<tr>
<td>• <em>Stridor, snoring, gurgling</em></td>
<td>• If completely obstructed</td>
</tr>
<tr>
<td>• Mental status changes -&gt; airway obstruction from tongue</td>
<td>• Use age-appropriate CHEST THRUSTS/ABDOMINAL THRUSTS/ BACK BLOWS</td>
</tr>
<tr>
<td>• Poor chest rise</td>
<td>• For obstruction due to tongue</td>
</tr>
<tr>
<td></td>
<td>• Open the airway using HEAD-TILT and CHIN LIFT or JAW THRUST (trauma)</td>
</tr>
<tr>
<td></td>
<td>• Place OPA or NPA as needed</td>
</tr>
<tr>
<td></td>
<td>• Plan for HANDOVER/TRANSFER</td>
</tr>
</tbody>
</table>
## Airway Obstruction: Burns

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Burns to head and neck</td>
<td>• Give OXYGEN to all patients with burn injuries</td>
</tr>
<tr>
<td>• Burned nasal hairs/soot</td>
<td>• Open the airway using HEAD-TILT and CHIN LIFT or JAW THRUST (trauma)</td>
</tr>
<tr>
<td>• Abnormal sounds from airway</td>
<td>• Place OPA or NPA as needed</td>
</tr>
<tr>
<td>• Stridor, snoring, gurgling</td>
<td>• Maintain c-spine IMMobilization if there is trauma</td>
</tr>
<tr>
<td>• Poor chest rise</td>
<td>• Plan for HANDOVER/TRANSFER</td>
</tr>
<tr>
<td></td>
<td>• Rapid airway swelling</td>
</tr>
</tbody>
</table>

Burns can cause airway swelling due to inhalation injuries!
Airway Obstruction: Severe Allergic Reaction

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mouth, lip and tongue swelling</td>
<td>• MONITOR for airway obstruction</td>
</tr>
<tr>
<td>• Difficulty breathing</td>
<td>• Give ADRENALINE for airway obstruction, severe wheezing or shock</td>
</tr>
<tr>
<td>• <em>Stridor</em> and/or <em>wheezing</em></td>
<td>• Can wear off in minutes, need additional doses</td>
</tr>
<tr>
<td>• <em>Rash</em> or <em>hives</em></td>
<td>• Start IV/ give IV FLUIDS</td>
</tr>
<tr>
<td>• Tachycardia and hypotension</td>
<td>• REPOSITION AIRWAY as needed</td>
</tr>
<tr>
<td>• Abnormal sounds from airway</td>
<td>• Sit patient upright (no trauma)</td>
</tr>
<tr>
<td>• <em>Stridor</em>, snoring, gurgling</td>
<td>• Give OXYGEN</td>
</tr>
<tr>
<td>• Poor chest rise</td>
<td>• If severe or not improving, plan for HANDOVER/TRANSFER</td>
</tr>
</tbody>
</table>

**MONITOR** for airway obstruction, severe wheezing or shock.
Airway Obstruction: Trauma

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Neck haematoma</td>
<td>• SUCTION to remove any blood</td>
</tr>
<tr>
<td>• Abnormal sounds from airway</td>
<td>• Open airway using JAW THRUST</td>
</tr>
<tr>
<td>• Stridor, snoring, gurgling</td>
<td>• Place an OPA as needed</td>
</tr>
<tr>
<td>• Change in voice</td>
<td>• Do not use NPA with facial trauma</td>
</tr>
<tr>
<td>• Poor chest rise</td>
<td>• Maintain SPINE IMMOBILIZATION</td>
</tr>
<tr>
<td></td>
<td>• Plan for HANDOVER/TRANSFER</td>
</tr>
</tbody>
</table>

In head/neck injuries obstruction can be from blood or due to the trauma itself

Penetrating wounds to neck cause obstruction from expanding hematoma
For any abnormal airway sounds, REASSESS the airway frequently as partial obstruction might worsen to completely block the airway.
Breathing Conditions: Tension Pneumothorax

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hypotension with difficulty breathing and any of the following:</td>
<td>• Perform NEEDLE DECOMPRESSION, give OXYGEN and IV FLUIDS</td>
</tr>
<tr>
<td>• Distended neck veins</td>
<td>• Plan for HANDOVER/TRANSFER</td>
</tr>
<tr>
<td>•Absent breath sounds on affected side</td>
<td>• Patient needs chest tube</td>
</tr>
<tr>
<td>• Hyperresonance with percussion on affected side</td>
<td></td>
</tr>
<tr>
<td>• May have tracheal shift away from affected side</td>
<td></td>
</tr>
</tbody>
</table>

Any pneumothorax can become a tension pneumothorax
Breathing Conditions: Suspected Opiate Overdose

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow respiratory rate (\text{bradypnea})</td>
<td>Give NALOXONE to reverse opiate medications</td>
</tr>
<tr>
<td>Hypoxia</td>
<td>MONITOR closely</td>
</tr>
<tr>
<td>Very small pupils</td>
<td>• Naloxone may wear off before opiate</td>
</tr>
<tr>
<td></td>
<td>• Give OXYGEN</td>
</tr>
</tbody>
</table>

Opioid medications (such as morphine, pethidine and heroin) can decrease the body’s drive to breathe.
## Breathing Conditions: Asthma/COPD

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Wheezing</td>
<td>• Give SALBUTAMOL as soon as possible</td>
</tr>
<tr>
<td>• Cough</td>
<td>• Give OXYGEN if indicated</td>
</tr>
<tr>
<td>• Accessory muscle use</td>
<td></td>
</tr>
<tr>
<td>• May have history of asthma/COPD, allergies or smoking</td>
<td></td>
</tr>
</tbody>
</table>

Asthma and COPD are conditions causing spasm in the lower airway.
# Breathing Conditions: Large Pleural Effusion/ Haemothorax

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Difficulty in breathing</td>
<td>• Give OXYGEN</td>
</tr>
<tr>
<td>• Decreased breath sounds on affected side</td>
<td>• Plan for HANDOVER/TRANSFER</td>
</tr>
<tr>
<td>• Dull sounds with percussion on affected side</td>
<td>• Patient may need chest tube</td>
</tr>
<tr>
<td>• With large amount of fluid could have tracheal shift</td>
<td></td>
</tr>
</tbody>
</table>

Pleural effusion occurs when fluid builds up in the space between the lung and the chest wall or diaphragm limiting the expansion of the lungs.
Circulation Conditions: Pulselessness

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>No pulse</td>
<td>Follow relevant CPR PROTOCOLS</td>
</tr>
<tr>
<td>Unconscious</td>
<td></td>
</tr>
<tr>
<td>Not breathing</td>
<td></td>
</tr>
</tbody>
</table>
Circulation Conditions: Shock

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rapid heart rate (<em>tachycardia</em>)</td>
<td>• LAY FLAT if tolerated</td>
</tr>
<tr>
<td>• Rapid breathing (<em>tachypnoea</em>)</td>
<td>• Give OXYGEN</td>
</tr>
<tr>
<td>• Pale and cool skin</td>
<td>• STOP and CONTROL any bleeding</td>
</tr>
<tr>
<td>• Capillary refill &gt;3 seconds</td>
<td>• Give IV FLUIDS</td>
</tr>
<tr>
<td>• Sweating (<em>diaphoresis</em>)</td>
<td>• If sign of infection give ANTIBIOTICS</td>
</tr>
<tr>
<td>• May have:</td>
<td>• Plan for HANDOVER/TRANSFER</td>
</tr>
<tr>
<td>• Dizziness</td>
<td></td>
</tr>
<tr>
<td>• Confusion</td>
<td></td>
</tr>
<tr>
<td>• Altered mental status</td>
<td></td>
</tr>
<tr>
<td>• Hypotension</td>
<td></td>
</tr>
</tbody>
</table>

Poor perfusion: failure to deliver enough oxygen-carrying blood to vital organs
Shock is when organ function is affected which can lead to death
### Circulation Conditions: Severe Bleeding

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bleeding wounds</td>
<td>• Stop bleeding depending on source</td>
</tr>
<tr>
<td>• <em>Bruising</em> around the umbilicus, over the flanks can be sign of internal bleeding</td>
<td>• DIRECT PRESSURE</td>
</tr>
<tr>
<td>• Vomiting blood, blood per rectum or vagina</td>
<td>• Use DEEP WOUND PACKING if large and gaping</td>
</tr>
<tr>
<td>• Pelvic or femur fractures</td>
<td>• TOURNIQUET- Only for uncontrolled bleeding with pressure</td>
</tr>
<tr>
<td>• Decreased breath sounds on one side</td>
<td>• BIND pelvis or SPLINT femur fracture</td>
</tr>
<tr>
<td>• Signs of poor perfusion</td>
<td>• Give IV FLUIDS</td>
</tr>
<tr>
<td>• Hypotension, tachycardia, pale skin, diaphoresis</td>
<td>• REFER for blood transfusion and on-going surgical management</td>
</tr>
</tbody>
</table>

If severe bleeding is not controlled it can lead to shock

Large amounts of blood can be lost in the chest, pelvis, thigh and abdomen
Circulation Conditions: Pericardial Tamponade

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
</table>
| - Signs of poor perfusion  
  - Tachycardia, tachypnea, hypotension, pale skin, cold extremities, capillary refill >3 seconds  
  - Distended neck veins  
  - Muffled heart sounds  
  - May have dizziness, confusion, altered mental status | - Treatment is drainage by pericardiocentesis  
  - IV FLUIDS to counter the pressure from fluid in heart sac  
  - Plan for HANDOVER/TRANSFER  
    - Needs facility capable of draining fluid |

Pericardial tamponade occurs when there is a fluid build-up in the sac around the heart. Pressure build-up keeps the heart from filling properly.
## Disability Conditions: Hypoglycaemia

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sweating (diaphoresis)</td>
<td>• Give GLUCOSE immediately</td>
</tr>
<tr>
<td>• Altered mental status</td>
<td>• If they can speak/swallow, give oral GLUCOSE</td>
</tr>
<tr>
<td>• Seizures/convulsions</td>
<td>• If they cannot speak or is unconscious, give IV GLUCOSE</td>
</tr>
<tr>
<td>• Blood glucose &lt;3.5mmol/L</td>
<td>• If unavailable give buccal (inside of cheek)</td>
</tr>
<tr>
<td>• History of diabetes, malaria or severe infection</td>
<td></td>
</tr>
<tr>
<td>• Responds quickly to glucose</td>
<td></td>
</tr>
</tbody>
</table>
Disability Conditions: Increased Intracranial Pressure

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Headache</td>
<td>• RAISE the head of the bed 30 degrees</td>
</tr>
<tr>
<td>• Seizure/convulsions</td>
<td>• If trauma, MAINTAIN CERVICAL SPINE IMMOBILIZATION</td>
</tr>
<tr>
<td>• Nausea, vomiting</td>
<td>• Check glucose</td>
</tr>
<tr>
<td>• Altered mental status</td>
<td>• If seizures, give BENZODIAZEPINE</td>
</tr>
<tr>
<td>• Unequal pupils</td>
<td>• Plan for HANDOVER/TRANSFER</td>
</tr>
<tr>
<td>• Weakness on one side of the body</td>
<td>• Pressure must be reduced as soon as possible which requires surgery</td>
</tr>
</tbody>
</table>

Can occur from trauma, tumors, increased fluid, bleeding or infection
Any swelling, fluid or mass increases pressure around the brain, limits blood flow
# Disability Conditions: Seizure/Convulsions

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Active seizure</td>
<td>• Prevent hypoxia and injury</td>
</tr>
<tr>
<td>• Repetitive movements</td>
<td>• Protect from falls/dangerous objects</td>
</tr>
<tr>
<td>• Fixed gaze to one side or alternating</td>
<td>• Do not stick anything in their mouth</td>
</tr>
<tr>
<td>rhythmically</td>
<td>• SUCTION as needed</td>
</tr>
<tr>
<td>• Not responsive</td>
<td>• Give OXYGEN</td>
</tr>
<tr>
<td>• Recent seizure</td>
<td>• Check glucose</td>
</tr>
<tr>
<td>• Bitten tongue</td>
<td>• Give GLUCOSE if needed</td>
</tr>
<tr>
<td>• Urinated on self</td>
<td>• Give a BENZODIAZEPINE</td>
</tr>
<tr>
<td>• Known history of seizures</td>
<td>• Monitor breathing</td>
</tr>
<tr>
<td>• Confusion gradually returning over</td>
<td>• Place in RECOVERY POSITION (if no trauma)</td>
</tr>
<tr>
<td>minutes or hours</td>
<td>• Give MAGNESIUM SULPHATE if pregnant or recently pregnant</td>
</tr>
<tr>
<td><strong>If cause unknown, consider trauma</strong></td>
<td></td>
</tr>
</tbody>
</table>
## Exposure Conditions: Snake Bite

### Signs and Symptoms
- History of snake bite
- Bite marks may be seen
- Oedema
- Blistering of skin
- Bruising
- Hypotension
- Paralysis
- Seizures
- Bleeding from wounds

### Management
- Limit the spread of venom and the effects on the body
- IMMOBILIZE THE EXTREMITY
- Take a picture of the snake to send with the patient if possible (mobile phone)
- Give IV FLUIDS if evidence of shock
- **Monitor** closely
  - Airway
  - Signs of shock
- Plan for HANDOVER/TRANSFER
Reassess ABCDEs Frequently!

The ABCDE approach is designed to quickly identify reversible life-threatening conditions.

Vital signs should be checked at the end of the ABCDE approach.

Once you find an ABCDE problem and manage it, you have to GO BACK and repeat the ABCDE again to identify any new problems that have developed and make sure that the management you gave worked.

Ideally, the ABCDE approach should be repeated every 15 minutes or with any change in condition.
Workbook Question 2

Using the workbook section above, list the management for airway blocked by a foreign body
Special Paediatric Considerations
Paediatric Airway Considerations

Compared to adults, children have:

- Bigger tongues
  - Use “sniffing” position
- Shorter necks, softer airway
  - Easier to block off
  - Avoid over-extending or flexing the neck
- A larger head compared to body
  - Watch closely for airway obstruction
  - Use jaw thrust
  - Correct head position with padding to open airway

- Excessive drooling, stridor, airway swelling, unwillingness to move neck are high-risk signs in children
Paediatric Breathing Considerations

- **Look** for signs of respiratory distress:
  - Nasal flaring
  - Head bobbing
  - Grunting
  - Chest indrawing or retractions

- *Cyanosis*, a blue/gray discoloration around lips, mouth or fingertips is a danger sign!

- **Look** at the lower ribs
  - Chest indrawing is when the lower chest wall goes IN when the child breathes IN
  - In normal breathing the whole chest and abdomen move OUT when the child breathes IN
Paediatric Breathing Considerations

• **Listen**
  - A *silent chest* is a sign of severe distress in a child
    - No breath sounds when you listen
    - Severe spasms and airway narrowing cause limited airway movement and few or no breath sounds may be heard.
    - Give SALBUTAMOL and OXYGEN
    - Reassess frequently

* Stridor
  - Sign of severe airway compromise
  - Allow child to stay in position of comfort
  - Plan for rapid HANDOVER/TRANSFER
    - Nebulized ADRENALINE
  - If unable to transfer immediately, consider IM ADRENALINE (Allergic reaction protocol)
Paediatric Circulation Considerations

• Consider the cause and condition of child when managing poor perfusion
• Low blood pressure in a child is a sign of severe shock!
  • Children will maintain a normal blood pressure longer than adults but decompensate quickly
  • Always monitor other signs of poor perfusion
    • Decreased urine output and altered mental status

Remember: Rate and type of fluid administered may be different from adults depending on the reason for poor perfusion and child’s nutritional status

*Malnourished children have different requirements
*Severe signs: Sunken fontanelle, poor skin pinch, lethargy, altered mental status
Paediatric Disability Considerations

• *Low blood glucose* is a common cause of altered mental status in a sick child
  • When possible, **check** blood glucose with altered mental status
  • When not possible, give GLUCOSE

• Always **check** blood sugar with seizures/convulsions

• It may be difficult to determine if a small child is acting normally. Ask family/friends who know the child to provide this information.
Paediatric Exposure Considerations

• Infants/children have trouble maintaining temperature
  • They can become hypothermic or hyperthermic quickly
  • Remove wet clothing and dry skin thoroughly
  • Skin-to-skin contact for infants
  • If concerned about hypothermia: Cover very small children’s heads
  • If concerned about hyperthermia: Unbundle tightly wrapped babies
Assess all children for the presence of danger signs. A child with danger signs needs urgent attention.

- Signs of airway obstruction
- Increased breathing effort
- Cyanosis
- Altered mental status
- Moves only when stimulated or no movement (AVPU other than “A”)
- Not feeding well/ cannot drink or breastfeed
- Vomiting everything
- Seizures/convulsions
- Low body temperature (hypothermia)
Workbook Question 3

Using the workbook section:

One paediatric airway consideration ______________________________

One paediatric breathing consideration ______________________________

One paediatric circulation consideration ______________________________

One paediatric disability consideration ______________________________

One paediatric exposure consideration ______________________________
ABCDEF Approach: Summary

**A** - Airway with cervical spine immobilization

**B** - Breathing plus oxygen if needed

**C** - Circulation IV fluids and bleeding control

**D** - Disability AVPU/GCS, pupils and glucose

**E** - Exposure and keep warm
Remember

If you find a problem with any of the ABCDEs:

STOP

CORRECT the problem

then

GO BACK to the beginning and REASSESS the ABCDEs again
<table>
<thead>
<tr>
<th>S</th>
<th>Signs and symptoms</th>
<th>Patient/family’s report of signs and symptoms is an essential assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Allergies</td>
<td>Important to prevent harm; may also suggest anaphylaxis</td>
</tr>
<tr>
<td>M</td>
<td>Medications</td>
<td>Obtain a full list and note recent medication or dose changes</td>
</tr>
<tr>
<td>P</td>
<td>Past Medical History</td>
<td>May help in understanding current illness and change management choices</td>
</tr>
<tr>
<td>L</td>
<td>Last Oral intake</td>
<td>Note whether solid or liquid; vomiting/choking risk for sedation; intubation or surgical procedures</td>
</tr>
<tr>
<td>E</td>
<td>Events surrounding the injury/illness</td>
<td>Helpful clues to the cause, progression and severity of current illness</td>
</tr>
</tbody>
</table>
Workbook Question 4

Using the workbook section above, list what the letters in SAMPLE stand for:

S
A
M
P
L
E
Disposition Considerations

• After ABCDE approach -> SAMPLE history -> Secondary exam-> Consider disposition

• If you have to intervene in any of the ABCDE categories, immediately consider HANDOVER/TRANSFER to a higher level of care

• A good handover includes:
  • Brief identification of the patient
  • Relevant elements of the SAMPLE history
  • Physical exam findings
  • Record of interventions given
  • Plans for future care
  • Things you may be concerned about
Questions
Quick Cards
## ABCDE Approach

**REMEMBER...** Always check for signs of trauma [see also TRAUMA card]

<table>
<thead>
<tr>
<th>ASSESSMENT FINDINGS</th>
<th>IMMEDIATE MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Airway</strong></td>
<td></td>
</tr>
<tr>
<td>Unconscious with limited or no air movement</td>
<td>If <strong>NO TRAUMA</strong>: head-tilt and chin-lift, use OPA or NPA to keep airway open, place in recovery position or position of comfort. If possible <strong>TRAUMA</strong>: use jaw thrust with c-spine protection and place OPA to keep the airway open (no NPA if facial trauma).</td>
</tr>
<tr>
<td>Foreign body in airway</td>
<td>Remove visible foreign body. Encourage coughing.</td>
</tr>
<tr>
<td></td>
<td>• If <strong>unable</strong> to cough: chest/abdominal thrusts/back blows as indicated</td>
</tr>
<tr>
<td></td>
<td>• If patient becomes unconscious: CPR</td>
</tr>
<tr>
<td>Gurgling</td>
<td>Open airway as above, suction (avoid gagging).</td>
</tr>
<tr>
<td>Stridor</td>
<td>Keep patient calm and allow position of comfort.</td>
</tr>
<tr>
<td></td>
<td>• For signs of anaphylaxis: give IM adrenaline</td>
</tr>
<tr>
<td></td>
<td>• For hypoxia: give oxygen</td>
</tr>
<tr>
<td><strong>Breathing</strong></td>
<td></td>
</tr>
<tr>
<td>Signs of abnormal breathing or hypoxia</td>
<td>Give oxygen. Assist ventilation with BVM if breathing NOT adequate.</td>
</tr>
<tr>
<td>Wheeze</td>
<td>Give salbutamol. For signs of anaphylaxis: give IM adrenaline.</td>
</tr>
<tr>
<td>Signs of tension pneumothorax (absent sounds / hyperresonance on one side WITH hypotension, distended neck veins)</td>
<td>Perform needle decompression, give oxygen and IV fluids. Will need chest tube</td>
</tr>
<tr>
<td>Signs of opiate overdose (AMS and slow breathing with small pupils)</td>
<td>Give naloxone.</td>
</tr>
</tbody>
</table>
### Circulation

**Signs of poor perfusion/shock**
- If **no pulse**, follow relevant CPR protocols.
- Give oxygen and IV fluids.

**Signs of internal or external bleeding**
- Control external bleeding. Give IV fluids.

**Signs of pericardial tamponade (poor perfusion with distended neck veins and muffled heart sounds)**
- Give IV fluids, oxygen.
- Will need rapid pericardial drainage.

### Disability

**Altered mental status (AMS)**
- If NO TRAUMA, place in recovery position.

**Seizure**
- Give benzodiazepine.

**Seizure in pregnancy (or after recent delivery)**
- Give magnesium sulphate.

**Hypoglycaemia**
- Give glucose if <3.5mmol/L or unknown.

**Signs of opiate overdose (AMS with slow breathing with small pupils)**
- Give naloxone.

**Signs of life-threatening brain mass or bleed (AMS with unequal pupils)**
- Raise head of bed, monitor airway.
- Will need rapid transfer for neurosurgical services.

### Exposure

**Remove wet clothing and dry skin thoroughly.**

**Remove jewelry, watches and constrictive clothing.**

**Prevent hypothermia and protect modesty.**

**Snake bite**
- Immobilize extremity. Send picture of snake with patient. Call for anti-venom if relevant.
<table>
<thead>
<tr>
<th>DANGER SIGNS in CHILDREN</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Signs of airway obstruction (unable to swallow saliva/dripping or stridor)</td>
</tr>
<tr>
<td>• Increased breathing effort (fast breathing, nasal flaring, grunting, chest indrawing or retractions)</td>
</tr>
<tr>
<td>• Cyanosis (blue colour of the skin, especially at the lips and fingertips)</td>
</tr>
<tr>
<td>• Altered mental status (including lethargy or unusual sleepiness, confusion, disorientation)</td>
</tr>
<tr>
<td>• Moves only when stimulated or no movement at all (AVPU other than “A”)</td>
</tr>
<tr>
<td>• Not feeding well, cannot drink or breastfeed or vomiting everything</td>
</tr>
<tr>
<td>• Seizures/convulsions</td>
</tr>
<tr>
<td>• Low body temperature (hypothermia)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESTIMATED WEIGHT in KILOGRAMS for CHILDREN 1–10 YEARS OLD:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[age in years + 4] x 2</td>
</tr>
</tbody>
</table>