

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
 - **S**igns and Symptoms
 - **A**llergies
 - **M**edications
 - **P**ast medical history
 - **L**ast oral intake
 - **E**vents
- 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



Personal protective equipment

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?

Yes, but not
normally

- **Listen** 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



Adult jaw thrust



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



Airway

QUESTIONS?





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 **haemothorax**
 - If also *hypotension, distended neck veins* or *tracheal shift*
 - THINK **tension pneumothorax**
- **Check** oxygen saturation



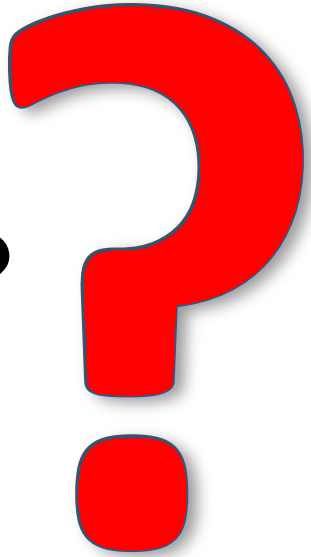
Breathing: Management

- 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



Circulation

QUESTIONS?





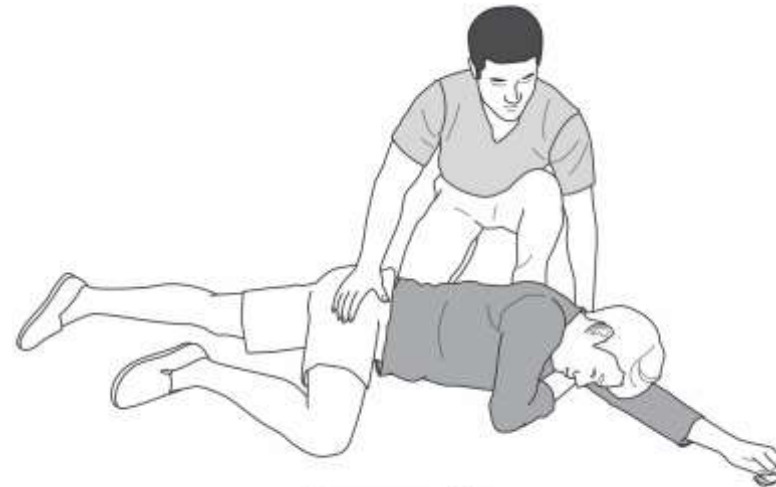
Disability: Assessment

- **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



Recovery position



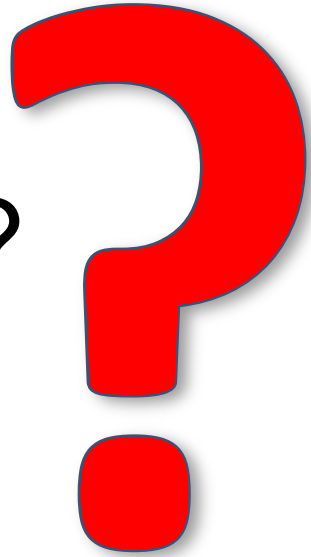
Disability: Management

- 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



Disability

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



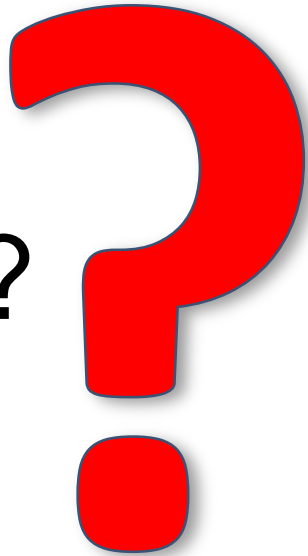
Exposure: Management

- 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?



In-Depth, Acute, Life-Threatening Conditions

 A	 B	 C	 D	 E
<ul style="list-style-type: none">• Obstruction: foreign body• Obstruction: burns• Obstruction: anaphylaxis• Obstruction: trauma	<ul style="list-style-type: none">• Tension pneumothorax• Opiate overdose• Asthma/COPD• Large pleural effusion/haemothorax	<ul style="list-style-type: none">• Pulselessness• Shock• Severe bleeding• Pericardial Tamponade	<ul style="list-style-type: none">• Hypoglycaemia• Increased pressure on the brain• Seizures/convulsions	<ul style="list-style-type: none">• Snake bite



Airway Obstruction: Foreign Body

Signs and Symptoms	Management
<ul style="list-style-type: none">• Visible secretions, vomit or foreign body• Abnormal sounds from airway<ul style="list-style-type: none">• <i>Stridor, snoring, gurgling</i>• Mental status changes -> airway obstruction from tongue• Poor chest rise	<ul style="list-style-type: none">• REMOVE or SUCTION visible foreign body/fluid if possible<ul style="list-style-type: none">• Do not push further into airway• If completely obstructed<ul style="list-style-type: none">• Use age-appropriate CHEST THRUSTS/ABDOMINAL THRUSTS/ BACK BLOWS• For obstruction due to tongue<ul style="list-style-type: none">• Open the airway using HEAD-TILT and CHIN LIFT or JAW THRUST (trauma)• Place OPA or NPA as needed• Plan for HANDOVER/TRANSFER



Airway Obstruction: Burns

Signs and Symptoms	Management
<ul style="list-style-type: none">• Burns to head and neck• Burned nasal hairs/soot• Abnormal sounds from airway<ul style="list-style-type: none">• Stridor, snoring, gurgling• Poor chest rise	<ul style="list-style-type: none">• Give OXYGEN to all patients with burn injuries• Open the airway using HEAD-TILT and CHIN LIFT or JAW THRUST (trauma)• Place OPA or NPA as needed• Maintain c-spine IMMOBILIZATION if there is trauma• Plan for HANDOVER/TRANSFER<ul style="list-style-type: none">• Rapid airway swelling

Burns can cause airway swelling due to inhalation injuries!



Airway Obstruction: Severe Allergic Reaction

Signs and Symptoms	Management
<ul style="list-style-type: none">• Mouth, lip and tongue swelling• Difficulty breathing<ul style="list-style-type: none">• <i>Stridor and/or wheezing</i>• <i>Rash or hives</i>• Tachycardia and hypotension• Abnormal sounds from airway<ul style="list-style-type: none">• Stridor, snoring, gurgling• Poor chest rise	<ul style="list-style-type: none">• MONITOR for airway obstruction• Give ADRENALINE for airway obstruction, severe wheezing or shock<ul style="list-style-type: none">• Can wear off in minutes, need additional doses• Start IV/ give IV FLUIDS• REPOSITION AIRWAY as needed<ul style="list-style-type: none">• Sit patient upright (no trauma)• Give OXYGEN• If severe or not improving, plan for HANDOVER/TRANSFER



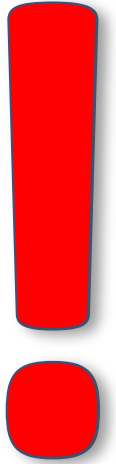
Airway Obstruction: Trauma

Signs and Symptoms	Management
<ul style="list-style-type: none">• Neck haematoma• Abnormal sounds from airway<ul style="list-style-type: none">• Stridor, snoring, gurgling• Change in voice• Poor chest rise	<ul style="list-style-type: none">• SUCTION to remove any blood• Open airway using JAW THRUST• Place an OPA as needed<ul style="list-style-type: none">• Do not use NPA with facial trauma• Maintain SPINE IMMOBILIZATION• Plan for HANDOVER/TRANSFER

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

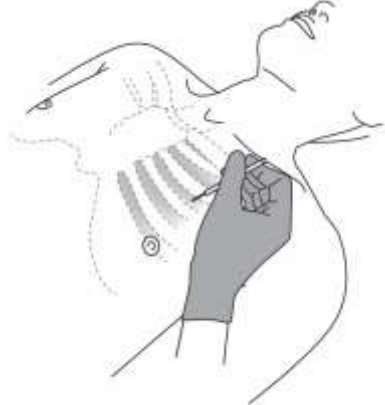
Penetrating wounds to neck cause obstruction from expanding hematoma

For any abnormal airway sounds,
REASSESS the airway frequently as
partial obstruction might worsen to
completely block the airway





Breathing Conditions: Tension Pneumothorax

Signs and Symptoms	Management
<ul style="list-style-type: none">• <i>Hypotension</i> with difficulty breathing and any of the following:<ul style="list-style-type: none">• Distended neck veins• Absent breath sounds on affected side• Hyperresonance with percussion on affected side• May have tracheal shift away from affected side	<ul style="list-style-type: none">• Perform NEEDLE DECOMPRESSION, give OXYGEN and IV FLUIDS• Plan for HANDOVER/TRANSFER<ul style="list-style-type: none">• Patient needs chest tube 

Any pneumothorax can become a tension pneumothorax



Breathing Conditions: Suspected Opiate Overdose

Signs and Symptoms	Management
<ul style="list-style-type: none">• Slow respiratory rate (<i>bradypnea</i>)• Hypoxia• Very small pupils	<ul style="list-style-type: none">• Give NALOXONE to reverse opiate medications• MONITOR closely<ul style="list-style-type: none">• Naloxone may wear off before opiate• Give OXYGEN

Opioid medications (such as morphine, pethidine and heroin) can decrease the body's drive to breathe



Breathing Conditions: Asthma/ COPD

Signs and Symptoms	Management
<ul style="list-style-type: none">• Wheezing• Cough• Accessory muscle use• May have history of asthma/COPD, allergies or smoking	<ul style="list-style-type: none">• Give SALBUTAMOL as soon as possible• Give OXYGEN if indicated

Asthma and COPD are conditions causing spasm in the lower airway



Breathing Conditions: Large Pleural Effusion/ Haemothorax

Signs and Symptoms	Management
<ul style="list-style-type: none">• Difficulty in breathing• Decreased breath sounds on affected side• Dull sounds with percussion on affected side• With large amount of fluid could have tracheal shift	<ul style="list-style-type: none">• Give OXYGEN• Plan for HANDOVER/TRANSFER<ul style="list-style-type: none">• Patient may need chest tube

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

Signs and Symptoms	Management
<ul style="list-style-type: none">• No pulse• Unconscious• Not breathing	<ul style="list-style-type: none">• Follow relevant CPR PROTOCOLS



Circulation Conditions: Shock

Signs and Symptoms	Management
<ul style="list-style-type: none">• Rapid heart rate (<i>tachycardia</i>)• Rapid breathing (<i>tachypnoea</i>)• Pale and cool skin• Capillary refill >3 seconds• Sweating (<i>diaphoresis</i>)• May have:<ul style="list-style-type: none">• Dizziness• Confusion• Altered mental status• Hypotension	<ul style="list-style-type: none">• LAY FLAT if tolerated• Give OXYGEN• STOP and CONTROL any bleeding• Give IV FLUIDS• If sign of infection give ANTIBIOTICS• Plan for HANDOVER/TRANSFER

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

Signs and Symptoms	Management
<ul style="list-style-type: none">• Bleeding wounds• <i>Bruising</i> around the umbilicus, over the flanks can be sign of internal bleeding• Vomiting blood, blood per rectum or vagina• Pelvic or femur fractures• Decreased breath sounds on one side• Signs of poor perfusion<ul style="list-style-type: none">• Hypotension, tachycardia, pale skin, diaphoresis	<ul style="list-style-type: none">• Stop bleeding depending on source<ul style="list-style-type: none">• DIRECT PRESSURE• Use DEEP WOUND PACKING if large and gaping• TOURNIQUET- Only for uncontrolled bleeding with pressure• BIND pelvis or SPLINT femur fracture• Give IV FLUIDS• REFER for blood transfusion and on-going surgical management



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

Signs and Symptoms	Management
<ul style="list-style-type: none">• Signs of poor perfusion<ul style="list-style-type: none">• Tachycardia, tachypnea, hypotension, pale skin, cold extremities, capillary refill >3 seconds• Distended neck veins• Muffled heart sounds• May have dizziness, confusion, altered mental status	<ul style="list-style-type: none">• Treatment is drainage by pericardiocentesis• IV FLUIDS to counter the pressure from fluid in heart sac• Plan for HANDOVER/TRANSFER<ul style="list-style-type: none">• 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

**D**

Disability Conditions: Hypoglycaemia

Signs and Symptoms	Management
<ul style="list-style-type: none">• Sweating (diaphoresis)• Altered mental status• Seizures/convulsions• Blood glucose <3.5mmol/L• History of diabetes, malaria or severe infection• Responds quickly to glucose	<ul style="list-style-type: none">• Give GLUCOSE immediately• If they can speak/swallow, give oral GLUCOSE• If they cannot speak or is unconscious, give IV GLUCOSE<ul style="list-style-type: none">• If unavailable give buccal (inside of cheek)



Disability Conditions: Increased Intracranial Pressure

Signs and Symptoms	Management
<ul style="list-style-type: none">• Headache• Seizure/convulsions• Nausea, vomiting• Altered mental status• Unequal pupils• Weakness on one side of the body	<ul style="list-style-type: none">• RAISE the head of the bed 30 degrees• If trauma, MAINTAIN CERVICAL SPINE IMMOBILIZATION• Check glucose• If seizures, give BENZODIAZEPINE• Plan for HANDOVER/TRANSFER<ul style="list-style-type: none">• Pressure must be reduced as soon as possible which requires surgery

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

Signs and Symptoms	Management
<ul style="list-style-type: none">• Active seizure<ul style="list-style-type: none">• Repetitive movements• Fixed gaze to one side or alternating rhythmically• Not responsive• Recent seizure<ul style="list-style-type: none">• Bitten tongue• Urinated on self• Known history of seizures• Confusion gradually returning over minutes or hours <p><u>If cause unknown, consider trauma</u></p>	<ul style="list-style-type: none">• Prevent hypoxia and injury• Protect from falls/dangerous objects• Do not stick anything in their mouth• SUCTION as needed• Give OXYGEN• Check glucose<ul style="list-style-type: none">• Give GLUCOSE if needed• Give a BENZODIAZEPINE• Monitor breathing• Place in RECOVERY POSITION (if no trauma)• Give MAGNESIUM SULPHATE if pregnant or recently pregnant



Exposure Conditions: Snake Bite

Signs and Symptoms	Management
<ul style="list-style-type: none">• History of snake bite• Bite marks may be seen• Oedema• Blistering of skin• Bruising• Hypotension• Paralysis• Seizures• Bleeding from wounds	<ul style="list-style-type: none">• 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<ul style="list-style-type: none">• 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



Neutral position in infants



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



Paediatric Breathing Considerations

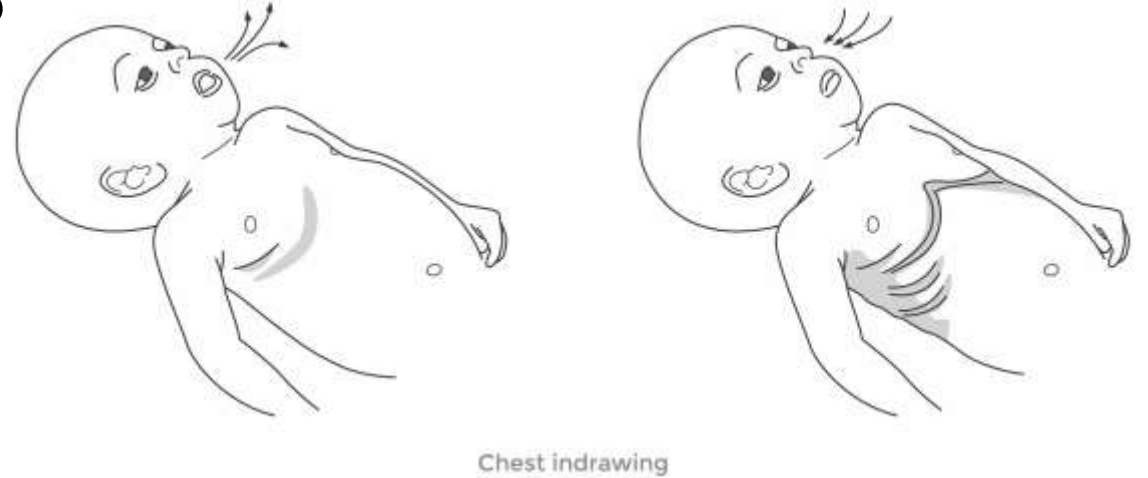
- **Look** for signs of respiratory distress :

- 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

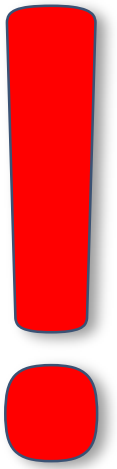
- *Low blood glucose* is a common cause of altered mental status in a sick child
 - When possible, **check** blood glucose with altered mental status
 - When not possible, give GLUCOSE
- Always **check** blood sugar with seizures/convulsions
- It may be difficult to determine if a small child is acting 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 _____

ABCDE 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



Elements of the SAMPLE history

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

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]

	ASSESSMENT FINDINGS	IMMEDIATE MANAGEMENT
Airway 	Unconscious with limited or no air movement	If NO TRAUMA : head-tilt and chin-lift, use OPA or NPA to keep airway open, place in recovery position or position of comfort. If possible TRAUMA : use jaw thrust with c-spine protection and place OPA to keep the airway open (no NPA if facial trauma).
	Foreign body in airway	Remove visible foreign body. Encourage coughing. <ul style="list-style-type: none">• If unable to cough: chest/abdominal thrusts/back blows as indicated• If patient becomes unconscious: CPR
	Gurgling	Open airway as above, suction (avoid gagging).
	Stridor	Keep patient calm and allow position of comfort. <ul style="list-style-type: none">• For signs of anaphylaxis: give IM adrenaline• For hypoxia: give oxygen
Breathing 	Signs of abnormal breathing or hypoxia	Give oxygen. Assist ventilation with BVM if breathing NOT adequate.
	Wheeze	Give salbutamol. For signs of anaphylaxis: give IM adrenaline.
	Signs of tension pneumothorax (absent sounds / hyperresonance on one side WITH hypotension, distended neck veins)	Perform needle decompression, give oxygen and IV fluids. Will need chest tube
	Signs of opiate overdose (AMS and slow breathing with small pupils)	Give naloxone.

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 $<3.5\text{mmol/L}$ 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.

DANGER SIGNS in CHILDREN

- Signs of airway obstruction (unable to swallow saliva/drooling or stridor)
- Increased breathing effort (fast breathing, nasal flaring, grunting, chest indrawing or retractions)
- Cyanosis (blue colour of the skin, especially at the lips and fingertips)
- Altered mental status (including lethargy or unusual sleepiness, confusion, disorientation)
- Moves only when stimulated or no movement at all (AVPU other than "A")
- Not feeding well, cannot drink or breastfeed or vomiting everything
- Seizures/convulsions
- Low body temperature (hypothermia)

ESTIMATED WEIGHT in KILOGRAMS for CHILDREN 1–10 YEARS OLD:

$[\text{age in years} + 4] \times 2$