A-E Assessment

Physical Health Day

1

Learning Outcomes

- Have a greater awareness of an A-E assessment
- Can prioritize "just one thing" to improve patient outcomes
- Can see the difference between normal and abnormal
- Awareness of what is inside the red bag
- Awareness of how to manage some medical emergencies
- Awareness of what medication is available for medical emergencies
- Practice the knowledge and skills learnt in SIM

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- A - Airway
- B - Breathing
- C - Circulation
- D - Disability
- E - Exposure

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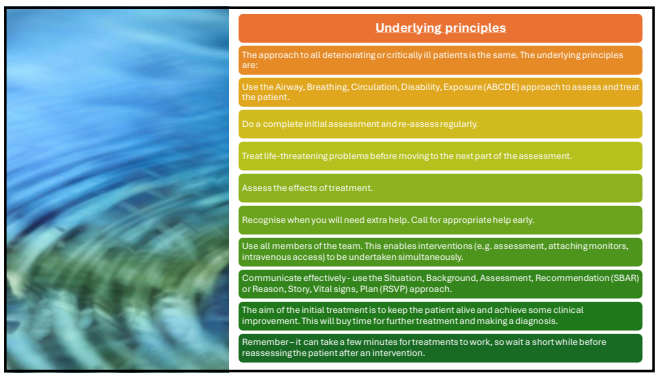
Underlying principles
The approach to all deteriorating or critically ill patients is the same. The underlying principles are:
Use the Airway, Breathing, Circulation, Disability, Exposure (ABCDE) approach to assess and treat the patient.
Do a complete initial assessment and re-assess regularly.
Treat life-threatening problems before moving to the next part of the assessment.
Assess the effects of treatment.
Recognise when you will need extra help. Call for appropriate help early.
Use all members of the team. This enables interventions (e.g. assessment, attaching monitors, intravenous access) to be undertaken simultaneously.
Communicate effectively - use the Situation, Background, Assessment, Recommendation (SBAR) or Reason, Story, Vital signs, Plan (RSVP) approach.
The aim of the initial treatment is to keep the patient alive and achieve some clinical improvement. This will buy time for further treatment and making a diagnosis.
Remember – it can take a few minutes for treatments to work, so wait a short while before reassessing the patient after an intervention.

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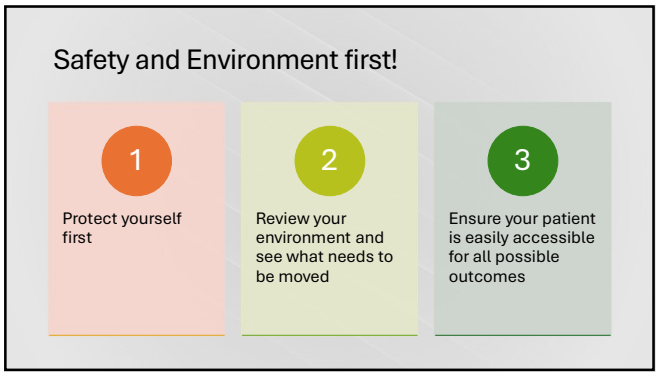
Safety and Environment first!
1
Protect yourself first
2
Review your environment and see what needs to be moved
3
Ensure your patient is easily accessible for all possible outcomes

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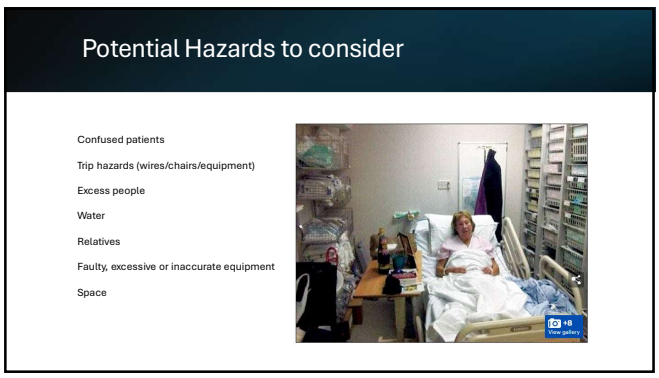
Potential Hazards to consider
Confused patients
Trip hazards (wires/chairs/equipment)
Excess people
Water
Relatives
Faulty, excessive or inaccurate equipment
Space

6

Two types or patient

When reflecting a patient deteriorating physically, there is only two types of patient. This session is focused on maintaining your patients in a "Not Dead" state until help arrives

Dead

Not Dead

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A - Look

- Does your patient look the same as when you last saw them?
- Do they look as you would expect them to?

8

A - Listen

- Patent Airway - Open
- Me: "Hey Mary how are you?"
- Mary: "Oh not you again!"

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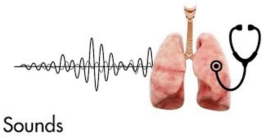
A - Listen

Non-Patent Airway – Closed or Obstructed

If your patient cannot speak to you, they are either:

Unconscious (get help now!)

Have a blocked airway (get help now!)



Lungs Sounds

Stridor

Blocked airway:
You will hear:
Nothing, no airflow
Or – Stridor, partial obstruction

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A - Feel

Place a hand close to the patient's mouth or nose to feel for airflow.

If you feel nothing, follow ILS protocol immediately.

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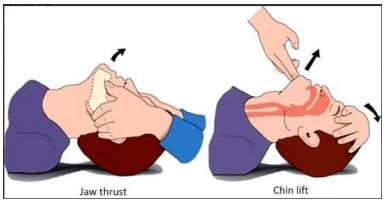
A – Just one thing! – Airway Manipulation



After ILS you can:

- Insert airways
- Suction
- Remove foreign bodies

To consider:

- Neck injuries
- Tongue

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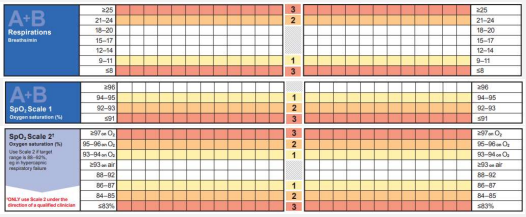
B - Observations

Respirations and SpO2

What's normal?



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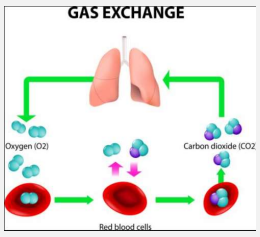
Why is respiratory rate so important?

- The most critical observation
- Tells you about patient homeostasis
- It is the bodies way to manage acid levels



Always count respirations for a full minute, and do not tell the patient you're doing it. Pretend to take their pulse whilst counting their respirations.

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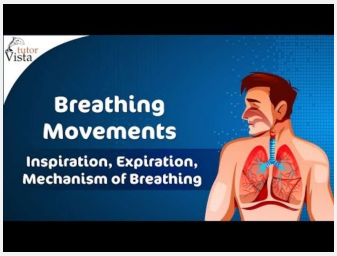
B - Look



If you see anything different from your patient's norm, get help immediately.

- See-Sawing
- Belly Breathing
- Accessory Muscles
- Only one side lifting
- Visibly blue

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B - Listen

- What can you hear when next to the patient?

Wheeze

Snore

Guttural Noises

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B - Feel

Touch your patient! (Get consent)

Does their breathing pattern feel normal?

Can you feel anything under your palms or fingers?

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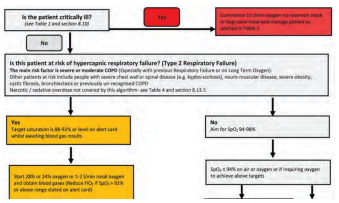
B – Just one thing! - Oxygen



BTS (2017)

https://www.brit-thoracic.org.uk/quality-improvement/guidelines/emergency-oxygen/

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Oxygen - Warnings

- It is a drug
- Oxygen can kill; be aware of those with COPD
- Give Oxygen until your patient has maintained target SpO2, then try to titrate it down
- Only give your patient the minimum oxygen required to maintain them at their SpO2 target
- If you do not know their target is always 96% - Get a medic or senior nurse to review the target ASAP

Air or oxygen?	A=Air		2	A=Air
	O_2 L/min			O_2 L/min
	Device			Device

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Red Bag – Airway and Breathing

Label – Airway and Breathing Pocket 1 Colour - Red	Label – Airway and Breathing Pocket 2 Colour - Yellow	Label – Airway and Breathing Pocket 3 Colour - Blue
		
1 x Bag Value and Mask 1x Non-Re-breath Mask 1x 20ml Syringe (not sterile)	3 x iGels 3 x Gidels 2 Nasopharyngeal airways	2 x Aqua gel (lube) 1 x Yanker 1x Magills Forceps

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Oxygen Cylinder Demonstration

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Suction Demonstration

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First Break – Please play and touch the equipment (Return it to where you found it)

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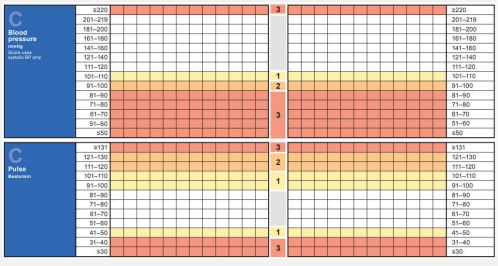
C - Observations

HR, BP What's normal?



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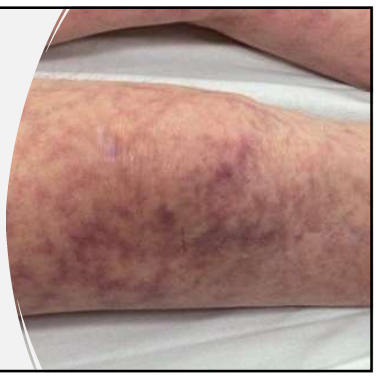
C - Look

- Colour – Grey, Mottled, Bright Red
- Sweaty or Clammy
- Clutching their chest



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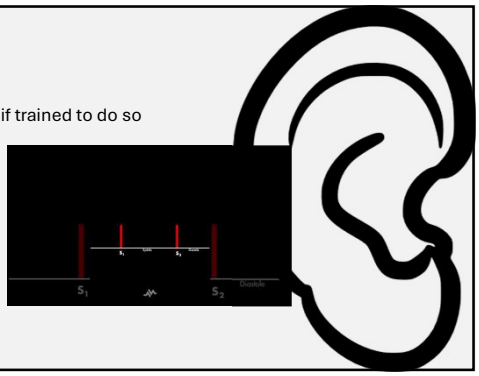
C - Listen

- Heart sounds if trained to do so



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C - Feel

Pulse Check

- How does it feel?
- Is it regular?

Capillary Refill Test (CRT)

1. Squeeze the patient's finger for 5 seconds between your thumb and for-finger
2. The nailbed will go white
3. Count how long it takes for normal colour to return

- 2 seconds or less, normal or high perfusion

- More than 2 seconds, low perfusion abnormal.

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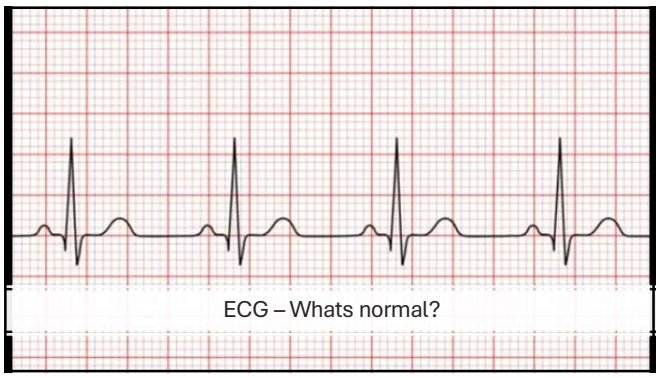

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Not Dead – But we are worried

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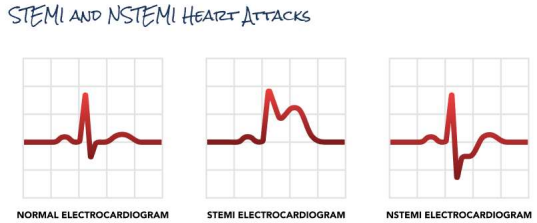
Not Dead – But having a heart attack



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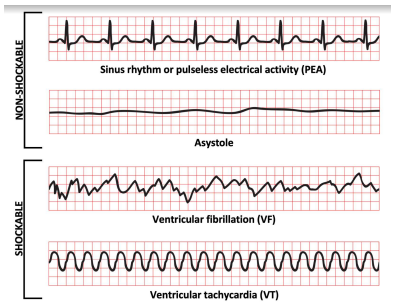
Dead – Start CPR



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C – Just one thing! – Lay down, legs up now!

If they are in a chair	If they are in a bed or on the floor
Get them on the floor! Best place to do CPR It will help manage some venous return Use appropriate manual handling techniques They're not dead, ask them to help	Slightly raise their legs using a pillow by placing the pillow behind their knees, this will help return blood from their legs back to their vital organs Sit them up if they are struggling to breathe

Find someone who can put in a cannula ASAP. It's always better to have access when they are not dead. Dead people are hard to cannulate

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Red Bag - Circulation

Label – Circulation Pocket 1 Colour - Black	Label – Circulation Pocket 2 Colour - Grey	Label – Circulation Pocket 3 Colour - Green
		
10 x Skin Wipes 3 x Bungs 6 x Blunt Filter Needles 2 x Pink / Green / Blue Cannula 2 x Torniquet 3 x Cannula dressings 1 x Medical Tape 2x Gauze	2 x 20 ml syringe 2 x 10min syringe 2 x 5ml syringe 2 x 2ml syringe	2x Free flowing giving set 1x 1ltr Sodium Chloride

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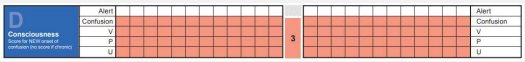
D - Observations

AVPU – Whats normal?



Awake	Verbal	Pain	Unresponsive
Patient is awake	Patient responds to a verbal stimulus	Patient responds to a pain stimulus	Patient is unresponsive to stimulus

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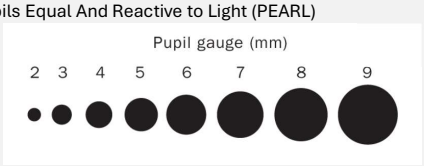
D - Look

- Pupils Equal And Reactive to Light (PEARL)



Depressant (Downers) drugs
- Benzos
- Opioids
- Alcohol

Stimulant (Uppers) drugs
- Cocaine
- Amphetamines
- Spice

Brain Injury

Always check the drugs chart for anything that is new or could cause strange neurological symptoms, such as mental health drugs.

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D - Listen

New confusion.
- Are they sounding or speaking differently?
- Do the words they say make sense?

Ask non-sense questions to check logical thinking and recolection.
- Does a stone float?
- Where are you?

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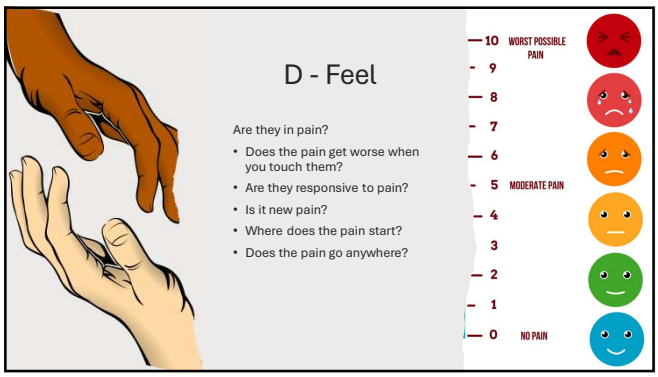
D - Feel
Are they in pain?
• Does the pain get worse when you touch them?
• Are they responsive to pain?
• Is it new pain?
• Where does the pain start?
• Does the pain go anywhere?
10 WORST POSSIBLE PAIN
9
8
7
6
5 MODERATE PAIN
4
3
2
1
0 NO PAIN

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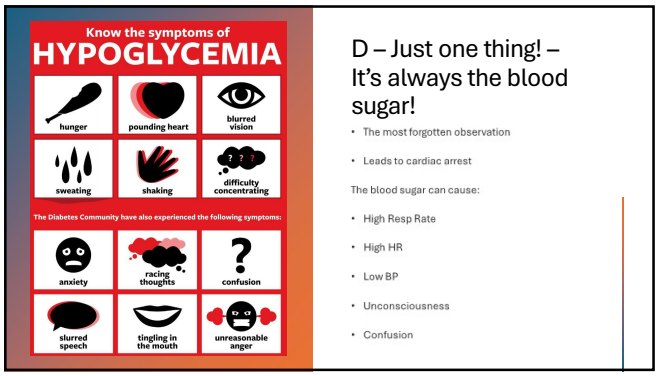
Know the symptoms of
HYPOGLYCEMIA
hunger
pounding heart
blurred vision
sweating
shaking
difficulty concentrating
The Diabetes Community have also experienced the following symptoms:
anxiety
racing thoughts
confusion
slurred speech
tingling in the mouth
unreasonable anger
D – Just one thing! – It's always the blood sugar!
• The most forgotten observation
• Leads to cardiac arrest
The blood sugar can cause:
• High Resp Rate
• High HR
• Low BP
• Unconsciousness
• Confusion

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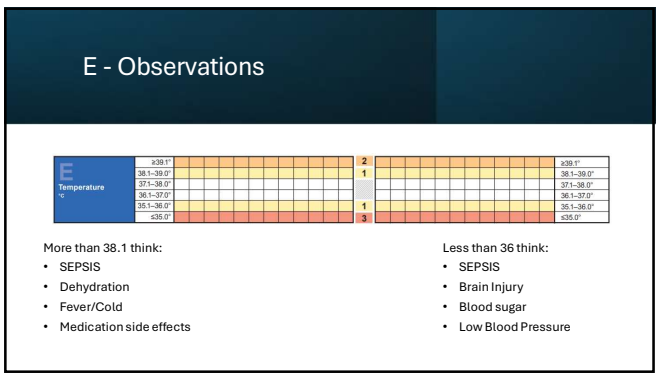
E - Observations
E
Temperature °C
More than 38.1 think:
• SEPSIS
• Dehydration
• Fever/Cold
• Medication side effects
Less than 36 think:
• SEPSIS
• Brain Injury
• Blood sugar
• Low Blood Pressure

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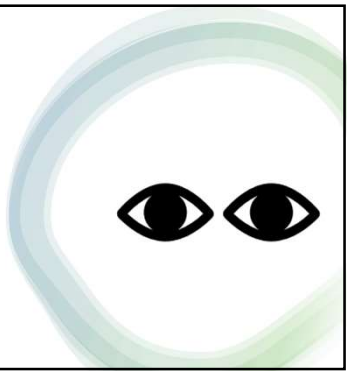
E - Look

Look at your patient:

- Remove clothing if appropriate and have consent to do so

You are checking for:

- Blood
- Wounds
- Stool / Urine
- Anything abnormal



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E - Listen

Ask the patient is there anything different they can feel, or see?

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E - Feel

Check your patient's strength is anything new?

- Can they raise both arms and keep them there?
- Can they raise both legs and keep them there?
- Is one hand stronger than another?

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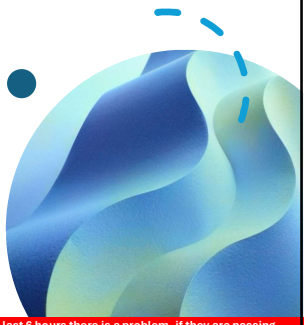
E – Just one thing! – If there is nothing in ABCD its always E!

- Are they bleeding?
- Have they had a stroke?
- Have they taken something?
- Are they peeing?
- Are they pooing?



Always think about urine! If they havnt passed urine in the last 6 hours there is a problem, if they are passing regularly but it is less than a shot glass it is a problem.

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Red Bag – Everything else

Label – Drugs Pocket 1 Colour - Orange	No label Colour - Grey	No label Behind Circulation Pockets OR Next to Circulation Pockets
		
5x Pre-filled 10ml Sodium Chloride flushes	2 x Small / Medium / Large Pairs of Gloves	1x Cylinder

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How to become dead – 4 H's and 4 T's

Top 8 ways to become dead

Hypoxia	Not enough Oxygen	**T**ension Pneumothorax	Hole in plural cavity
Hypokalaemia Hyperkalaemia	Low or High potassium	**T**amponade	Hole in heart layers
Hypothermia Hyperthermia	Low or High Temperature	**T**hrombosis	Blood clot
Hypovolaemia	Not enough fluid (Shock)	**T**oxins	Drugs

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What's in the Blue Box

Drug	What's it for	Drug	What's it for
Salbutamol (2 puffs) Inhaler Salbutamol (5mg/1ml) Neb	Asthma Attack	GlucoBoost / GlycoGel Buccal	Low BM (if conscious / rousable)
Adrenaline (Epinephrine)IM 1:1000	Anaphylaxis	Glucagon IM	Low BM (if unconscious)
Amiodarone (30mg/ml) IM	Slows down the nerves impulses around the heart	Furosemide (50mg/5ml) IV	Fluid Overload
Naloxone (400mcg) IV AKA Narcan	Antidote for opioids	Flumazenil (500mcg/5ml) IV	Antidote for benzodiazepines
Aspirin (300mg) PO	Breaks down clots		
Glycerine Trinitrate (GTN) Spray Buccal 2 Sprays!	Vasodilation (Expands blood vessels)		
Diazepam (10mg/2ml) IV Diazepam (2.5mg) PR	Seizure management		

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Stroke

Type of Dead - **T**hrombosis

Airway	Breathing	Circulation	Disability	Exposure
Usually Patent If not, start CPR immediately. • Look – Potentially patent. • Listen – Normal breath sounds • Feel – Air flowing normally	RR – Within Range SpO2 – Within Range (Might be slightly slow) • Look – Potentially only lifting one side of their chest • Listen – Normal breath sounds, could be guttural if aspirated • Feel – Potentially only one side moving	HR – Likely high BP – Likely high >200 • Look – Potentially grey. • Listen – Normal heart sounds • Feel – CRT likely to be very fast, less than 1 sec return. Pulse bounding.	AVPU – Likely only VPU • Look – PEARL normal. • Listen – Potentially very confused, slurred speech or incoherent words • Feel – Potentially headache BM – Slightly raised due to stress response	Temp – Within Range • Look – Face drooping to one side • Listen – Ask the patient to talk to you, they might be slurred • Feel – Ask the patient to raise both arms and hold them there

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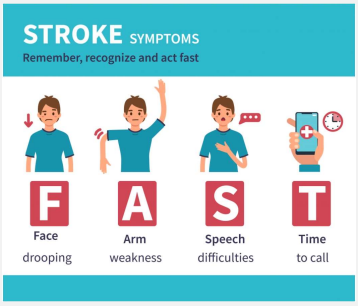
What can I do now?

- Call 999, senior nurse and medics
- Keep repeating A-E until help arrives; treat as you find
- Get emergency bag
- Prepare to start CPR if necessary



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Sepsis Screen "Red Flags"

SEPSIS

Type of Dead – **T**oxin or **H**ypovolaemia

Airway	Breathing	Circulation	Disability	Exposure
Usually Patent If not, start CPR immediately. • Look – Potentially patent. • Listen – Normal breath sounds • Feel – Air flowing normally	RR – >25 per min SpO2 – < 94% • Look – Clearly struggling to breathe, coughing up sputum • Listen – guttural noises, could indicate chest infection • Feel – Normal chest movement, working hard	HR – > 130 BP – Systolic < 90 • Look – Potentially grey or mottled. They look sick • Listen – Fast sound heart • Feel – CRT likely to be slow. Pulse weak and thready	AVPU – Alert • Look – PEARL normal. • Listen – Acute Confusion • Feel – No pain BM – Slightly raised due to stress response	Temp – High > 38 or Low > 35 **Low urine output** • Look – Check everything! Wounds, medical devices. • Listen – What's different? • Feel – Likely normal

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What can I do now?

Start what you can on the Sepsis 6

Call 999, senior nurse and medics

Keep repeating A-E until help arrives; treat as you find

Get emergency bag

Prepare to start CPR if necessary

Action (complete ALL within 1 hour)	Reason not done/variance
1. Administer oxygen Aim to keep saturations > 94% (88-92% if at risk of CO_2 retention e.g. COPD)	Time complete Initials
2. Take blood cultures At least a peripheral set. Consider e.g. CSF, urine, sputum Think source control! Call surgeon/ radiologist if needed CXR and urinalysis for all adults	Time complete Initials
3. Give IV antibiotics According to Trust protocol Consider allergies prior to administration	Time complete Initials
4. Give IV fluids If hypotensive/ lactate >2mmol/l, 500 ml stat. May be repeated if clinically indicated- do not exceed 30ml/kg	Time complete Initials
5. Check serial lactates Corroborate high VBG lactate with arterial sample *If lactate >4mmol/l, call Critical Care and recheck after each 10ml/kg challenge*	Time complete Initials Not applicable- initial lactate
6. Measure urine output May require urinary catheter Ensure fluid balance chart commenced & completed hourly	Time complete Initials

Getting help within an hour reduces the risk of death by 46.6%.

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Heart Attack

Type of Dead - **T**hrombosis

Airway	Breathing	Circulation	Disability	Exposure
Usually Patent If not, start CPR immediately. • Look – Potentially patent. • Listen – Normal breath sounds • Feel – Air flowing normally	RR – High SpO2 – Normal • Look – Working hard • Listen – Normal breath sounds • Feel – Normal	HR – Likely high BP – Likely high • Look – Grey and Clammy • Listen – Abnormal heart sounds • Feel – CRT likely to be slow, less than 1 sec return. Pulse weak, thready and irregular. ECG – STEMI or NSTEMI	AVPU – Alert • Look – PEARL normal. • Listen – Potentially confused or incoherent words • Feel – Crushing chest pain. Radiating to their left shoulder blade or left arm BM – Slightly raised due to stress response	Temp – Within Range • Look – Normal • Listen – Normal • Feel – Normal

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What can I do now?

Recommend: GTN (2 Puffs) and 300mg Aspirin

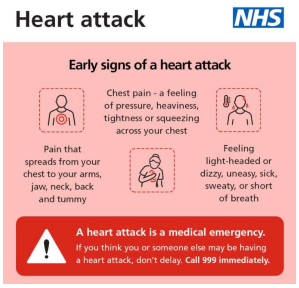
Call 999, senior nurse and medics

Keep repeating A-E until help arrives; treat as you find

Get emergency bag

Prepare to start CPR if necessary

Think Acute Coronary Syndrome (ACS)



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Hypoglycaemic (Low BM/Blood Sugar)

Type of Dead - Toxin

Airway	Breathing	Circulation	Disability	Exposure
Usually Patent If not, start CPR immediately. • Look – Potentially patent. • Listen – Normal breath sounds • Feel – Air flowing normally	RR – Low SpO2 – Within Range • Look – Normal, just slow • Listen – Normal breath sounds could be snoring • Feel – Normal	HR – High to start with, then low BP – Low • Look – Potentially grey and clammy • Listen – Normal heart sounds • Feel – CRT likely to be slow, more than 5 sec to return. Pulse weak and thready	AVPU – Likely only VPU • Look – PEARL normal, could be pinpoint • Listen – Potentially very confused, slurred speech or incoherent words • Feel – No pain BM – > 4	Temp – Within Range • Look – Trembling or shaking • Listen – Ask the patient to talk to you; they might be slurred • Feel – Normal

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What can I do now?

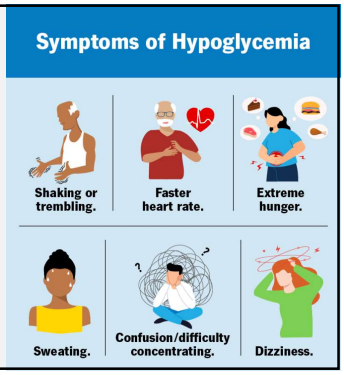
Get sugar in them now! Orally or IV

Call 999, senior nurse and medics

Keep repeating A-E until help arrives; treat as you find

Get emergency bag

Prepare to start CPR if necessary



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Asthma

Type of Dead –**H**ypoxia

Airway	Breathing	Circulation	Disability	Exposure
Usually Patent If not, start CPR immediately. • Look – Potentially patent. • Listen – Normal breath sounds • Feel – Air flowing normally	RR – High SpO2 – Normal to start with, will drop **FAST** if untreated • Look – Working hard • Listen – Wheezing, coughing • Feel – Working hard	HR – Likely high BP – Likely high • Look – Potentially grey. • Listen – Normal heart sounds • Feel – CRT likely to be very fast, less than 1 sec return. Pulse fast and bounding.	AVPU – Normal • Look – PEARL normal. • Listen – Difficulty speaking due to breathing. • Feel – Chest could hurt due to coughing. BM – Slightly raised due to stress response	Temp – Within Range • Look – Normal • Listen – Normal • Feel – Normal

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What can I do now?

Give Ventolin! 2 puffs ideally via a spacer

Up to 10 puffs – 30 sec between each puff (NHS 2024)

Sit them up, get Oxygen ready

Call 999, senior nurse and medics

Keep repeating A-E until help arrives; treat as you find

Get emergency bag

Prepare to start CPR if necessary

https://www.nhs.uk/medicines/salbutamol-inhaler/

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Overdose

Type of Dead –**T**oxins

Airway	Breathing	Circulation	Disability	Exposure
Usually Patent If not, start CPR immediately. • Look – Potentially patent. • Listen – Normal breath sounds • Feel – Air flowing normally	RR – Low or High SpO2 – Low or High • Look – Normal • Listen – Normal breath sounds could be guttural if aspirated • Feel – Normal	HR – Low or High BP – Low or High • Look – Potentially grey. • Listen – Normal heart sounds. • Feel – CRT likely to be very fast, less than 1 sec return. Pulse either bounding or thready or irregular.	AVPU – Likely only VPU • Look – Fixed, dilated narrow • Listen – Potentially very confused, slurred speech or incoherent words • Feel – Normal BM – Slightly raised or low depending on the drug	Temp – Within Range • Look – Vacant • Listen – Ask the patient to talk to you; they might be slurred • Feel – Ask the patient to raise both arms and hold them there

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What can I do now?

Recommend: Naloxone / Narcan

If your patient is neurologically different, has no signs of stroke. Think drugs!

Call 999, senior nurse and medics

Keep repeating A-E until help arrives; treat as you find

Get emergency bag

Prepare to start CPR if necessary

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S	**Situation:** I am (name), (X) nurse on ward (X) I am calling about (patient X). I am calling because ... I am concerned that ... (eg blood pressure is low/high, pulse is XX, temperature is XX, Early Warning Score is XX)
B	**Background:** Patient (X) was admitted on (XX date) with ... (eg MI/chest infection) They have had (X operation/procedure/investigation) Patient (X)'s condition has changed in the last (XX mins) Their last set of observations were (XX) Patient (X)'s normal condition is ... (eg alert/drowsy/confused, pain free)
A	**Assessment:** I think the problem is (XXX) And I have ... (eg given O_2/analgesia, stopped the infusion) OR I am not sure what the problem is but patient (X) is deteriorating OR I don't know what is wrong but I am worried
R	**Recommendation**: I need you to ... Come to see the patient in the next (XX mins) AND Is there anything I need to do in the meantime? (eg stop the fluid/repeat the observations)

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