EMERGENCY CARE READINESS PROGRAMME

2 RECOGNISE BEFORE COLLAPSE

A patient looks critically ill. What do I do?

One answer. One pathway. It does not change when the diagnosis changes. Assessment structure from the **Resuscitation Council UK ABCDE approach**; resuscitation and peri-arrest pathways follow the **AHA 2025 Guidelines**, as on Day 1.

• Day 2 of 5 | Lima Primary Health Centre | Nursing · Medical · Clinical staff

BEFORE ANYTHING ELSE

A 58-year-old man is carried into the treatment room. He is grey, sweating and breathing fast. Nobody knows what is wrong with him. What do you do first?

You do not need a diagnosis to start saving a life.

Lab tests, a full history and a working diagnosis all ask this patient to wait while you become certain. There is one pathway that does not.

RECOGNISE → CALL FOR HELP → ABCDE → TREAT AS YOU FIND →

REASSESS → ESCALATE

This strip appears on every chapter. The highlighted step is where you are.

The disease changes.
The approach stays the same.

Part 1 · nurse-led

Triage + NEWS2 — who cannot wait, and how we prove it. 35–45 minutes, then a formal handover.

Part 2 · the rest of the morning

The sick patient · **ABCDE** · shock · five cases including drowning · trauma · escalation.

One outcome

By the end of the session you can run this pathway on a patient you have never seen before, without being told the diagnosis.

▼ The morning, by the clock — open only if you need it

One suggested shape for four hours. **It is a suggestion, not part of the teaching** — the content below stands on its own whatever order you deliver it in. The two simulations at the end are the part that changes behaviour, so everything before them runs to time.

08:00–08:10	Opening — one pathway, not eight diseases	10 min
08:10–08:55	**Chapter 01** · Triage + NEWS2 — nurse-led, ending in a formal handover	45 min
08:55–09:05	**Chapter 02** · Does this patient look sick?	10 min
09:05–09:45	**Chapter 03** · ABCDE, four steps inside every letter, + live walkthrough	40 min
09:45–10:00	Break	15 min

10:00–10:08	**Chapter 04** · Shock	8 min
10:08–10:40	**Chapter 05** · **Four live cases** — anaphylaxis, sepsis, seizure, drowning. 8 min each, by the clock	32 min
10:40–10:50	**Chapter 06** · Trauma	10 min
10:50–11:00	Escalate · SBAR	10 min
11:00–11:43	**Two simulations + debriefs**	43 min
11:43–11:53	Take-home + post-test	10 min

Total **233 minutes**. **Case 1 (asthma) is deliberately not run live** — it is the same patient as the ABCDE walkthrough in Chapter 03, so teaching it twice costs eight minutes and adds nothing. It stays in the lecture for reference and self-study. If you are still behind at **10:32**, cut another case rather than the simulations. The **green block** is the part of the morning that actually changes what people do.

● Chapter 01 · nurse-led · 35–45 min

Triage + NEWS2

One triage system, one physiological support tool — **prioritise safely and recognise deterioration early.**

RECOGNISE → CALL FOR HELP → ABCDE → TREAT AS YOU FIND → REASSESS → ESCALATE

TRIAGE ASKS ONE QUESTION

How long can this patient safely wait?

It does **not** ask what is wrong with them. That is a different question, and it cannot be answered in two minutes.

How we triage in Oman

Oman uses **ONSET** — the Oman National System for Emergency Triage, a Ministry of Health policy first issued in 2019. It is a **five-level scale derived from the Emergency Severity Index** and modified for the Omani health system. **ONSET remains referenced in Oman Ministry of Health emergency guidance published in 2025.**

Before anything else, settle what is what. Most triage confusion in this building is not about thresholds — it is staff treating three different things as three competing systems, and not knowing which one they are supposed to be using.

SYSTEM

ONSET / ESI

Decides **the priority** — who is seen, and in what order. Five levels, national MOH policy.

INPUTS

Findings

Presentation · vital signs · **pain** · mental state. These *feed* the decision. None of them is a triage system on its own.

SUPPORT

NEWS2

Adult physiological deterioration and escalation. A **separate** tool, answering a different question. Not part of the ONSET algorithm.

ONSET decides who goes first.
NEWS2 tells you who is getting worse.

The ONSET decision — four questions, in order

Not five colours to memorise. Four questions, asked in sequence. **Q1 and Q2 are stop questions** — a yes at either ends the triage and starts the response. If both are no, you

continue to Q3 and Q4.

Q1

LIFE THREAT?

Answer before anything else

Does this patient need a life-saving intervention **now**?

- Airway obstructed or threatened
- Not breathing adequately
- Severe shock · critical perfusion failure
- Major change in conscious level
- Needs an immediate life-saving drug or intervention

WHAT IT DECIDES

YES → Level 1. Do not finish routine triage. Call for help and start ABCDE.

Q2

CANNOT WAIT?

The question that catches the queue death

Is this a patient who should **not** sit in the waiting area?

- High-risk presentation — stroke · concerning chest pain · sepsis physiology
- Could deteriorate rapidly
- Time-critical condition
- New confusion, lethargy or disorientation
- **Severe pain or distress** in a fitting clinical context

WHAT IT DECIDES

YES → Level 2. Inform the clinician and move into the urgent pathway.

Q3

WHAT WILL THEY NEED?

Only if Q1 and Q2 are both NO

How many clinical resources will this patient probably need?

- **None** → Level 5

- **One** → Level 4
- **Two or more** → Level 3
- A resource is an investigation, a procedure or a treatment — not a question you ask

WHAT IT DECIDES

This is the ESI logic that ONSET is built on. It estimates work, not severity.

Q4

CHECK THE PHYSIOLOGY

A safety net inside the system

Are the vital signs concerning?

- Respiratory rate is often an early and sensitive marker of deterioration
- Saturation · pulse · blood pressure · temperature
- Conscious level
- **There is no universal sequence.** Abnormal physiology can raise the level — it never lowers it.

WHAT IT DECIDES

Vital signs are not a separate triage system. They are a check inside this one.

LIFE THREAT → CANNOT WAIT → RESOURCES → PHYSIOLOGY →

ASSIGN · ACT · REASSESS

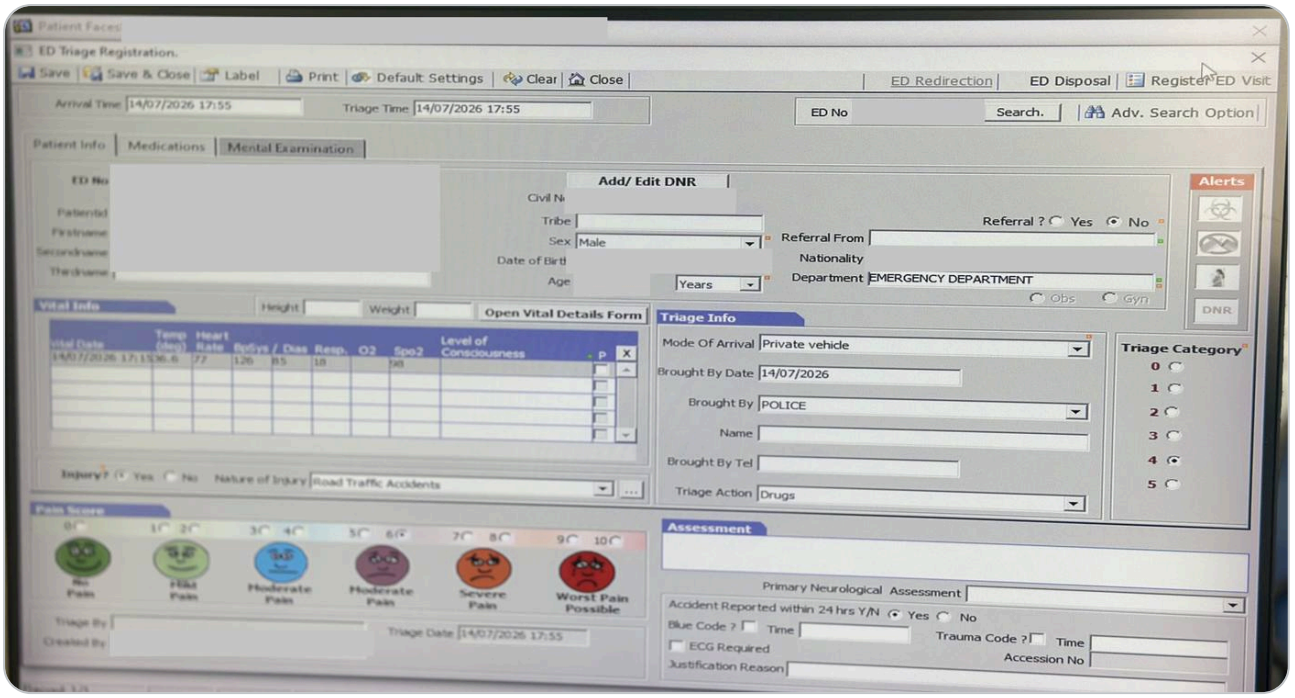
Q1 and Q2 are stop questions. A YES at either one ends the triage there and starts the response — a Level 1 patient is never resource-counted. **If both are NO, continue** to resource prediction (Q3) and then to the vital signs (Q4).

A RED FLAG DOES NOT MEAN TRIAGE FASTER. IT MEANS STOP TRIAGING.

Move the patient, call for help, and begin **ABCDE**. You do not finish a triage form on a patient who is dying in front of you. **The form waits. The patient does not.**

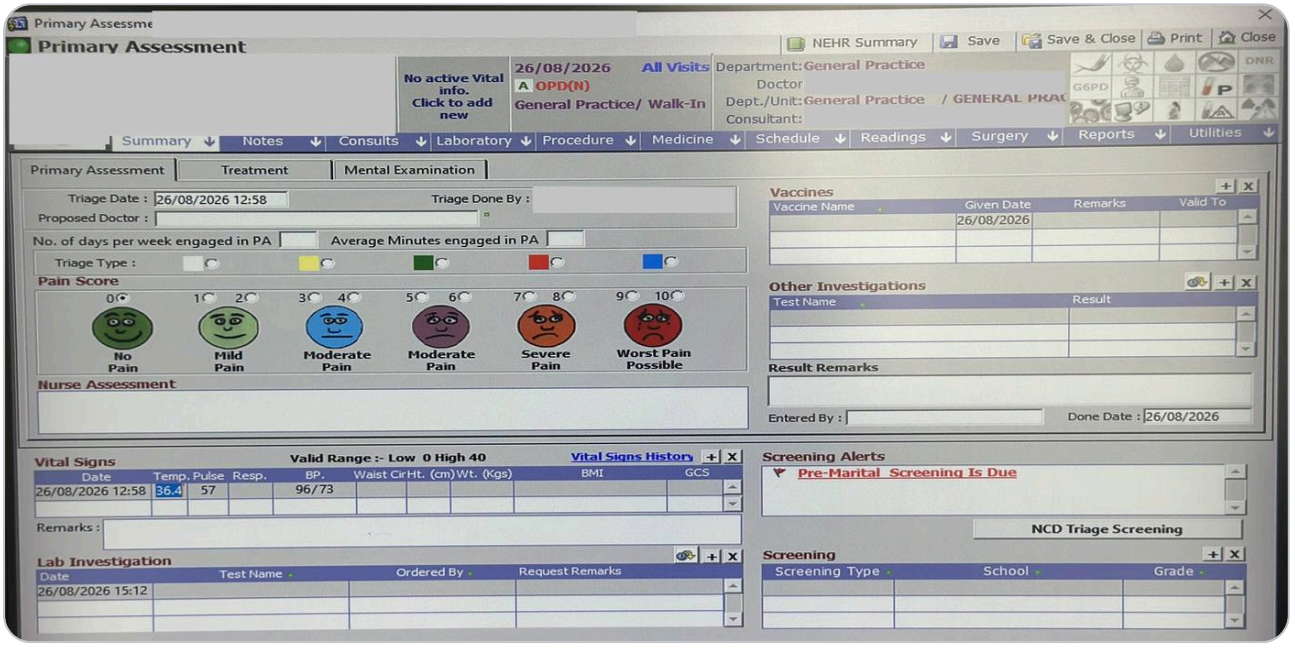
Where you document it — our own screens

ONSET is the logic. **Al Shifa is where the decision gets recorded.** Two screens, depending on where the patient walked in. Most of these fields are not paperwork — they are the decision, written down.



Al Shifa — Emergency Department triage

Identifiers permanently removed



Al Shifa — OPD / walk-in triage

Identifiers permanently removed

These are our own screens. Every patient and staff identifier has been **permanently removed from the image itself** before publication — not hidden behind an overlay.

ED

Emergency Department triage

The screen used when the patient comes to Emergency.

OPD

Clinic / OPD triage

The screen used for walk-in and clinic patients.

FIELD	WHAT IT IS FOR
Arrival Time and **Triage Time**	Two *separate* fields. The gap between them is **door-to-triage** — a real, auditable interval that already exists in our system and that nobody currently reports. Every other interval is measured from Triage Time.
Triage Category	A row of buttons numbered **0–5**. *ONSET is a five-level scale, so the meaning of 0 on this screen is not something we can deduce — confirm it locally before teaching it.*

FIELD	WHAT IT IS FOR
Triage Done By	Your name. Triage is a clinical decision with a person attached to it.
Pain score	**0–10**, with the faces: 0 no pain, 1–2 mild, 3–6 moderate, 7–8 severe, 9–10 worst pain possible.
Pulse · Resp · BP · **GCS**	The vitals row. Note it carries GCS rather than ACVPU.
Vital Signs History	One click, and you have the **trend**. This is the single most under-used link on the screen — the whole of Part 1 is about trends beating snapshots.
Nurse Assessment	Free text. Short, specific and timed beats long and vague.

FIELD	WHAT IT IS FOR
Mode of Arrival · Brought By	Mode of arrival provides important context; acuity is determined by the patient's clinical condition.
Sys/Dias · Resp · O_2 · SpO_2 · **Level of Consciousness**	**Five of the seven NEWS2 parameters are already on this row.** Only pulse and temperature sit elsewhere.
Pain score	**0–10**, with the faces. An input to question 2, not a category.

FIELD	WHAT IT IS FOR
Proposed Doctor	Who you are handing the patient to. Naming a doctor is the first half of an escalation; the second half is telling them.
Other Investigations	Where the bedside glucose is recorded.
Screening Alerts · NCD Triage Screening	Colon, elderly, NCD, pre-marital. Not emergency work — but do not let them distract from a sick patient in front of you.
The row of five colours	*White, yellow, green, red, blue. What each one means is not stated on the screen. Complete this on the day — see below.*

FIELD	WHAT IT IS FOR
Injury ? + Nature of Injury	A yes/no flag and a coded cause — road traffic accident, fall, burn. This is what makes injury data countable rather than buried in free text.
Blue Code ? + Time	The arrest flag — and the system asks for the **time**. Tick it and fill the time in as it happens, not afterwards from memory.
ECG Required + Justification Reason	For possible cardiac chest pain the standard is a 12-lead **within 10 minutes** of arrival. The field exists to prove you met it.

FIELD	WHAT IT IS FOR
Trauma Code	The trauma equivalent of Blue Code.
Add / Edit DNR	Resuscitation status. Check it *before* you need to know it.
Triage Action	What you actually did. This is where “moved to resus and called Dr X” belongs.
ED Redirection · ED Disposal	Where the patient went — redirected out of Emergency, or dispositioned from it.

⚠ **THE GAP THIS LEAVES**

Neither screen calculates NEWS2. Both capture the observations; nothing on either one adds them up, applies the RCP weighting, or tells you the band. The numbers sit in boxes and the score exists only if somebody works it out.

That is precisely the gap the **Triage Support tool** fills — and why it is a separate thing you open, rather than something the system will ever prompt you for.

⚠ **A BASELINE FINDING, FROM OUR OWN SCREEN**

In the OPD record we photographed, the header reads **“No active Vital info”**, and the vitals row carries a **temperature, a pulse and a blood pressure**. There is **no respiratory rate and no saturation** — and the **GCS column is empty**.

Respiratory rate is the earliest sign of deterioration and the most heavily weighted parameter in NEWS2. A triage entry without one cannot produce a NEWS2 score at all — not a low score, *no* score. It is also the observation most often estimated rather than counted.

This is one record, not an audit. But it is a reasonable **baseline question**: in the last fifty OPD triage entries, how many carry a respiratory rate? That number is easy to obtain, and it is the kind of measurable gap this programme exists to close.

The five colours — we fill this in together

The OPD screen carries a **Triage Type** row of **five colour buttons — white, yellow, green, red, blue**. The buttons are labelled with the colour names. **What each colour means clinically is not written anywhere on the screen**, and we are not going to invent it. **Fill this in as a room, from the live system and local policy, and photograph it.**

COLOUR	WHAT IT MEANS ON OUR SYSTEM	WHICH PATIENT	WHAT YOU DO NEXT
☐ White			
☐ Yellow			
☐ Green			
☐ Red			
☐ Blue			

TWO QUESTIONS TO SETTLE AT THE SAME TIME

1. Does this five-colour row map onto the five ONSET levels, or is it a different classification the system carries for another purpose? **2.** On the ED screen the Triage Category runs **0–5** — six options for a five-level scale. What is 0? Neither question can be answered from a screenshot. Both can be answered in ten minutes by asking.

IF THE ROOM CANNOT AGREE

That is not a gap in the teaching — it is **a finding**, and it goes in the Corrective Action Register. A colour-coded field that five staff interpret five ways is producing inconsistent data at the point of triage, every day, and nobody has noticed because the box always gets filled.

The pain score — where it belongs

It is on the Al Shifa triage screen, and it is not decoration. But it is an **input**, not a system.

⚠ THE RULE

Score the pain. Triage the patient.

Pain is part of the ONSET decision — severe pain or distress is one of the high-risk features under **Q2**. But a number on its own does not set a level. **Pain severity + site + presentation + distress + physiology** together make the decision.

PAIN CAN ONLY MOVE A PATIENT UP

Never down-triage because the pain score is low.

Silent myocardial infarction, hypoxia and early sepsis all present with a low pain score. A comfortable patient is not necessarily a well patient.

WHERE SEVERE PAIN IS THE RED FLAG

Sudden “worst ever” headache · severe abdominal or back pain · acute testicular pain · pain out of proportion to the findings.

That last one is the one people miss — ischaemic limb, compartment syndrome, necrotising infection. The patient hurts far more than the leg looks.

Recording the pain score also creates an **auditable standard**: time from arrival to analgesia in severe pain. We do not currently measure it.

TAKE THIS TO THE NIGHT SHIFT

Triage Support — a phone-sized tool that walks the ONSET questions, scores NEWS2 and tells you what it found. Built for 02:00, when the question is *"is this the one I call the doctor for?"* Open the tool → (../tools/triage-support.html)

It names the features that are present. It does **not** assign an ONSET level and it does **not** tell you how many minutes you have — those come from approved policy, not from a training tool.

▼ The five ONSET levels in full

LEVEL	NAME	WHAT IT MEANS
1	**Resuscitation**	Immediate threat to life. Seen now, in the resuscitation area, team called.
2	**Emergency**	High risk of rapid deterioration, or time-critical. **Cannot sit in the queue.**
• 3	**Urgent**	Significant illness, currently physiologically stable.
4	**Less urgent**	Safe to wait, with periodic reassessment.
5	**Non-urgent**	Minor or routine; may be redirected within normal workflow.

▼ Why? — the two rules that prevent most triage errors

Up-triage when uncertain. Between two levels, choose the higher. The cost of over-triage is a nurse's time. The cost of under-triage is a patient found collapsed in a corridor.

Never triage by capacity. The category describes the patient, not how busy we are. Capacity problems require escalation; they do not justify assigning a lower acuity.

LOCAL POLICY

Category definitions, target waiting times and workflow follow the current **Oman MOH / Lima approved ONSET policy**. Waiting times are deliberately not printed here.

5 · Vital signs — one of them is watched more closely than the rest

ONE NUMBER, ON ITS OWN

Respiratory rate 32. Everything else looks acceptable. How worried are you?

Very. And you should already be moving.

Respiratory rate is **often an early and sensitive marker** of deterioration. **Count it properly and trend it.** A rate of ≥25 or ≤8 scores 3 on NEWS2 *by itself*. **One extreme physiological parameter can be enough to trigger urgent clinical review** — the local escalation pathway defines who is called and how.

A written “18” that nobody counted is worse than no number at all, because it provides false reassurance.

What deterioration often looks like

TREND > SINGLE NUMBER

One set of observations is a photograph. Two sets are a direction. **The direction is the finding.**

RR OFTEN CHANGES EARLY

Respiratory rate is often an early and sensitive marker of deterioration. **Count it properly and trend it.**

NORMAL BP DOES NOT EXCLUDE SHOCK

Compensated shock holds the blood pressure up until it cannot. A normal systolic is **not** reassurance.

NO UNIVERSAL SEQUENCE

Signs do not arrive in a fixed order. It depends on the cause, the age and the reserve. **Do not memorise a list.**

	09:00	11:00	WHAT CHANGED
Respiratory rate	18	**24**	Up 6 — the first thing to move
SpO_2 (air)	97	**94**	Falling
Pulse	88	**112**	Up 24
Systolic BP	128	**124**	Barely moved — still “normal”
Temperature	37.2	38.4	Rising
NEWS2 total	**0**	**7**	**0 → 7 in two hours**

READ THE BLOOD PRESSURE ROW AGAIN

It went 128 → 124. Anyone looking only at the blood pressure would have called this patient stable. **Two sets of observations, two hours apart, and the score went from 0 to 7.** That is the entire argument for trending.

THE ONE THING TO TAKE FROM THIS

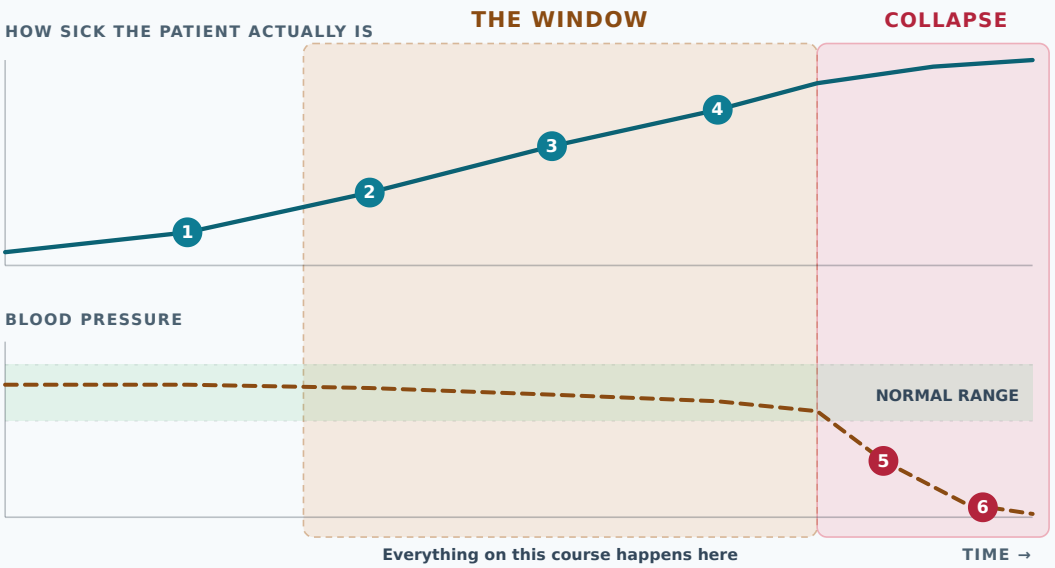
A normal blood pressure never rules out a critically ill patient.

Watch **the trend**, not a memorised list.

▼ Why? — the deterioration curve and the grouped signs

One patient, one common pattern. Watch the two lines against each other — that is the whole teaching point. **It is a pattern, not a rule.**

ILLUSTRATIVE DETERIORATION PATTERN — NOT A UNIVERSAL SEQUENCE



How sick the patient actually is · Blood pressure · The window of opportunity

Read the two lines against each other. In *this* patient — compensated shock developing gradually — the blood pressure stays inside the normal range while the body compensates, and it is still normal through the whole shaded window. When it finally falls, compensation has already failed.

What this drawing shows: 1 respiratory rate rises · **2** saturation falls · **3** heart rate rises · **4** restless, then confused · **5** blood pressure falls · **6** consciousness

falls.

> **WHAT THIS DRAWING DOES NOT SHOW**
>
> **A rule.** This is one common pattern, not a law of physiology. Haemorrhage, arrhythmia, anaphylaxis, hypoglycaemia and opioid toxicity can each move these markers in a completely different order — and some patients lose consciousness or become hypotensive first. **There is no universal sequence: trends and clinical context decide.**

The signs, grouped

Often EARLY — and sensitive

Respiratory rate rises · oxygen saturation falls · heart rate rises · restless or agitated · pulse pressure narrows · peripheries cool or mottled.

Often LATE — in compensated shock

Blood pressure falls · conscious level falls. In *compensated* shock these can stay normal until compensation fails.

7 · NEWS2 — putting a number on “not right”

Six physiological measurements plus supplemental oxygen. It does not replace judgement, triage or ABCDE. What it does is give you a number that **travels down a phone line**.

What it measures

Respiratory rate · oxygen saturation · whether they are on oxygen · systolic blood pressure · pulse · consciousness · temperature.

What it is for

Language. “NEWS2 of 9” travels down a phone line. “He doesn't look right” does not.

What it is not

Not a diagnosis, not a substitute for ABCDE, and never a reason to delay treating an obviously critically ill patient. **Treat first, score after.**

8 · Calculate it

RESPIRATION RATE /MIN	SPO₂ %	SYSTOLIC BP MMHG
18	97	120

PULSE /MIN	TEMPERATURE °C	SPO₂ SCALE
78	36.8	Scale 1 / Scale 2

AIR OR OXYGEN: Air / Oxygen

CONSCIOUSNESS: Alert

0
NEWS2 TOTAL

LOW

Registered nurse assesses and decides whether to escalate; set the observation interval.

Highest single parameter: **Respiration rate = 0**

PARAMETER	SCORE
Respiration rate	0
SpO₂ (Scale 1)	0
Air or oxygen	0
Systolic BP	0
Pulse	0
Consciousness	0
Temperature	0

RCP NEWS2 escalation guidance — adapt to the approved Lima / Oman MOH escalation pathway.

AGGREGATE SCORE	CLINICAL RISK	RCP ESCALATION GUIDANCE
0	Low	Routine monitoring per local policy.
1–4	Low	Assessment by a registered nurse, who decides whether to escalate and how often to repeat observations.
3 in any *single* parameter	Low-medium	Urgent review by a clinician — one very abnormal value matters even when the total looks acceptable.
5–6	Medium	**Key threshold.** Urgent review by a clinician competent in the assessment of acute illness; increase monitoring frequency.
≥7	High	Emergency assessment, continuous monitoring, senior clinician, and active consideration of transfer.

9 · When a score is not enough

A single 3

One parameter scoring 3 — a respiratory rate of 26, for example — needs an urgent clinician review **even when the total is only 3**.

The trend

A score of 4 that was 1 an hour ago is more worrying than a stable 5. Look at the last set, not just this one.

Your concern

Clinical concern overrides a reassuring score. If you are worried and the number is 2 — escalate anyway, and say why.

One patient. Four sets of observations. Four and a half hours.

OBSERVATION	08:00	09:30	11:00	12:30
Respiration rate	18 (0)	22 (2)	**25 (3)**	**26 (3)**
SpO₂ (Scale 1)	97% (0)	95% (1)	94% (1)	93% (2)
Air or oxygen	Air (0)	Air (0)	Air (0)	Air (0)
Systolic BP	148/82 (0)	138/78 (0)	118/70 (0)	92/54 (2)
Pulse	88 (0)	102 (1)	112 (2)	118 (2)
Consciousness	Alert (0)	Alert (0)	Alert (0)	**new Confusion (3)**
Temperature	37.4 °C (0)	38.2 °C (1)	38.7 °C (1)	38.9 °C (1)
NEWS2 total	**0**	**5**	**7**	**13**
RCP guidance	LOW — NURSE ASSESSES	MEDIUM — URGENT REVIEW	HIGH — EMERGENCY ASSESSMENT	HIGH — EMERGENCY ASSESSMENT
What actually happened	“He is fine.”	Nobody was called.	Still nobody was called.	**Now everybody comes.**

Look along the Systolic BP row. It scores 0 · 0 · 0 · 2 — zero, zero, zero, and only then 2. The blood pressure contributed **nothing** to the score for four and a half hours, while the total went 0 → 5 → 7 → 13. The respiratory rate had already crossed the escalation threshold at 09:30. **This is the patient in Case 3, three visits earlier.**

⚠ **LOCAL POLICY**

Who is called, by what method and within what timeframe follows the Lima Health Centre / Oman MOH escalation policy.

NEWS2 is validated in adults ≥16 years — not in pregnancy or in children, which have their own tools (Days 3 and 4). Scoring system: Royal College of Physicians, *National Early Warning Score (NEWS) 2*, reproduced unaltered.

10 · The waiting patient

Reassess if…

anyone says they look worse · the observations change, especially a rising respiratory rate · new pain, confusion, breathlessness or vomiting · the wait exceeds the local interval · **or you have a feeling something is wrong and cannot yet say why.**

A category is not a plan

A level-2 patient with nobody named to review them has not been triaged — they have been labelled. Assign the category, **and** a person, **and** a time.

11 · Triage challenge — who goes first?

Five patients arrive together. Tap them in the order you would assess them, then reveal the reasoning.

Patient 1 · 22 y, male –

Sudden breathlessness. Two words at a time, sitting forward, accessory muscles. SpO_2 88% on air.

Patient 2 · 79 y, female –

Fever two days, now confused and unsteady. Hot skin, cool peripheries. BP 88/52, HR 112, T 38.8 °C.

Patient 3 · 55 y, male –

Central chest pressure 40 minutes, sweating, nauseated. Talking normally, BP 142/86.

Patient 4 · 34 y, female –

Twisted her ankle this morning. Limping, in pain, asking repeatedly how long the wait will be.

Patient 5 · 8 y, boy –

Runny nose and cough three days. Alert, playing, normal observations, feeding normally.

You have identified the patient who cannot wait.

→ Now what?

End of the nurse-led block. The rest of the morning is led from here.

• Chapter 02

Does this patient look sick?

Before any number, any test, any diagnosis — the end-of-the-bed judgement of an experienced clinician is a real clinical finding. Trust it, then confirm it.

TEN SECONDS, FROM THE END OF THE TROLLEY

What are you actually looking at?

Colour
pale · grey · mottled · blue

Effort
fast · laboured · noisy · silent

Posture
sitting forward · slumped · will not lie flat

Alertness
engaged — or not quite there

And one sentence: “Hello, are you all right?” A clear reply means a patent airway, breathing, and a brain that is being perfused. *Three letters answered in one sentence.*

⚠ **IF UNRESPONSIVE AND NOT BREATHING NORMALLY**

Stop. **Activate Code Blue and go to the AHA BLS pathway taught on Day 1.** Agonal gasping is not breathing.

This is the pathway. It starts now.

RECOGNISE → CALL FOR HELP → ABCDE → TREAT AS YOU FIND → REASSESS → ESCALATE

Recognise

Something is wrong — before the numbers collapse.

Call for help

Early. A named person, a named method, and confirmation that they went. Late escalation reduces the time available for stabilisation and safe transfer.

Then ABCDE

And you do not leave a letter until what you found there is treated.

● Chapter 03 · the core of the day

Master ABCDE

Five letters. **The same four actions inside every one of them.**

RECOGNISE → CALL FOR HELP → ABCDE → TREAT AS YOU FIND →

REASSESS → ESCALATE

1 · LOOK
What am I looking for?

2 · FIND THE THREAT
What can kill this patient now?

3 · ACT
What do I do immediately?

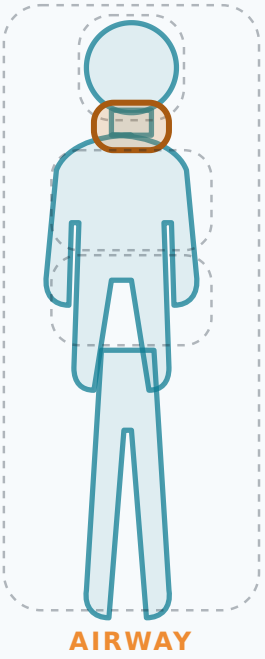
4 · REASSESS
Did it work?

You never leave a letter with an untreated threat behind you.

One patient, five letters

The same patient runs through all five. The monitor beside the letters is his — watch it change.

A Airway | **B** Breathing | **C** Circulation | **D** Disability | **E** Exposure



1 · LOOK
What am I looking for?

2 · FIND THE THREAT
What can kill him now?

- Can they **speak**?
- Stridor · gurgling · snoring
- Secretions, vomit, blood, swelling
- See-saw movement · reduced consciousness

- Complete obstruction — **minutes**
- A swelling tongue or lips
- The tongue in a drowsy patient
- Silence *with* effort

3 · ACT

What do I do immediately?

- Position · head tilt–chin lift · **jaw thrust if trauma**
- Suction under direct vision
- Oxygen
- **Call the doctor early** — airway adjuncts and definitive airway management sit with the medical team

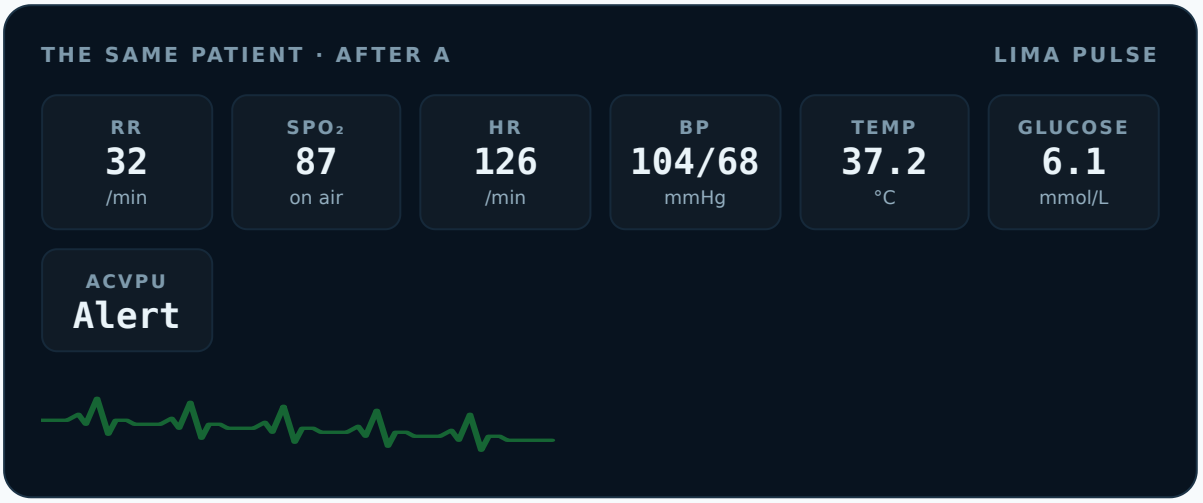
4 · REASSESS

Did it work?

- Is air moving now?
- Has the noise stopped — or the patient?
- Saturation and chest movement
- Go back to A after every manoeuvre

Head tilt-chin lift
The first manoeuvre. Not if trauma is possible.

Jaw thrust
Preferred where cervical injury is possible.



One patient, one pass. Watch the numbers change as each letter is treated — **that** is what "treat as you find" looks like.

Then you go back to the beginning

A → B → C → D → E ↻ A

ABCDE IS A LOOP.

Treat → reassess → **start again if the patient changes.** Performed once on arrival and never repeated, it finds the deterioration at minute forty instead of minute twenty.

The one-line memory card

A	**Can they talk?**	AIRWAY
B	**Are they breathing effectively?**	BREATHING
C	**Are they perfusing?**	CIRCULATION
D	**Is the brain working?**	DISABILITY
E	**What have I not yet seen?**	EXPOSURE

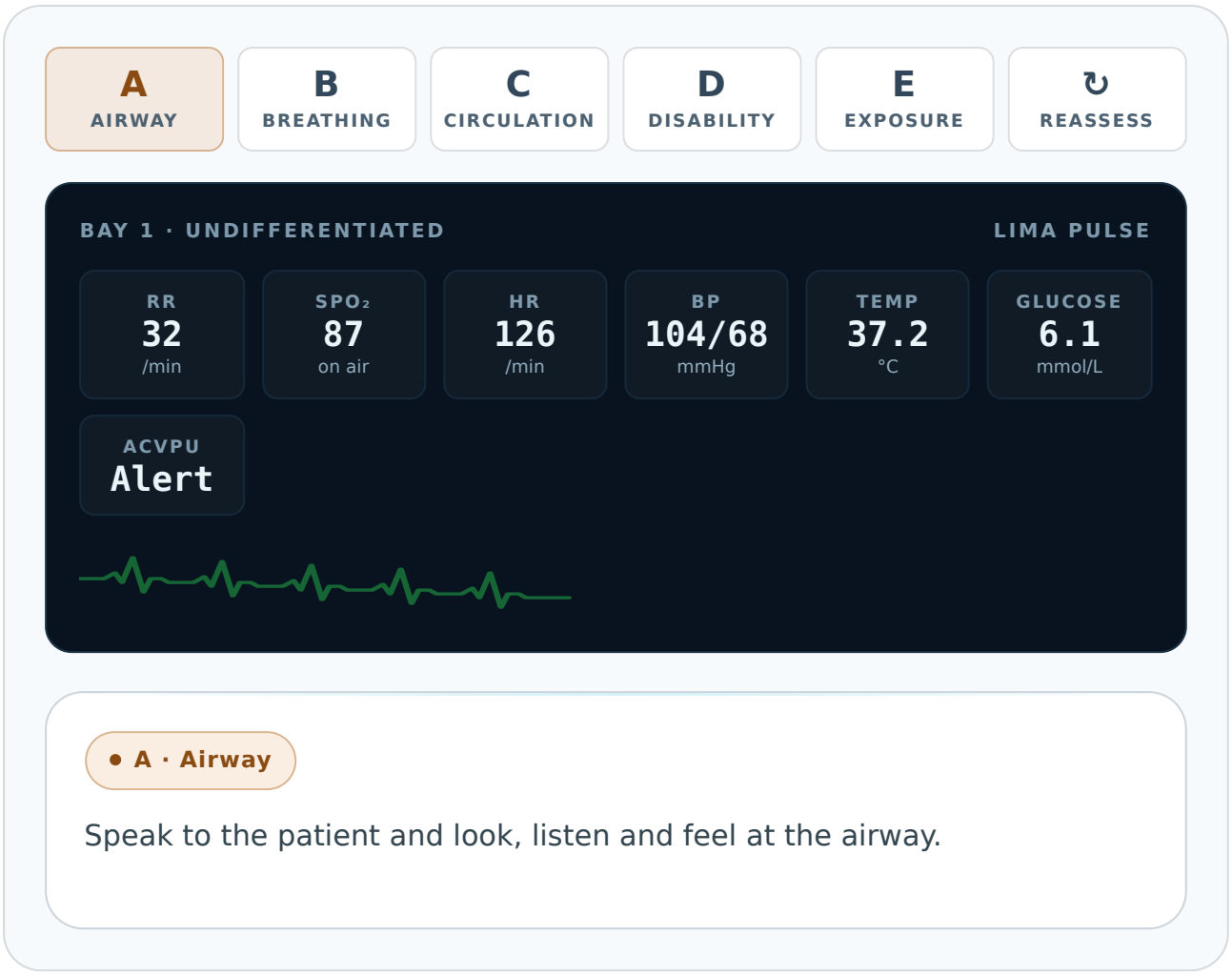
FIND IT → TREAT IT → REASSESS IT

This is printed on the pocket card in the Day 2 print pack. One per person, top pocket.

Now do it. One patient, no diagnosis.

Findings appear only when you assess for them. A life-threatening abnormality must be treated before you can move on — **the**

walkthrough will not let you leave it.



• Chapter 04 · 8 minutes

SHOCK = INADEQUATE PERFUSION

Not a blood-pressure number. A clinical diagnosis, made at the bedside, that exists long before the pressure falls.

EMPTY

Hypovolaemic / haemorrhagic

Bleeding · vomiting · diarrhoea · burns.

Needs volume — and, if it is blood, needs the bleeding stopped.

DISTRIBUTION FAILURE

Sepsis · anaphylaxis

Vessels dilate and leak. The tank is the wrong size.

Volume, plus the cause treated now.

PUMP FAILURE

Cardiogenic

MI · severe cardiac dysfunction · some arrhythmias.

Fluids may worsen pulmonary oedema — give only when indicated, and reassess.

OBSTRUCTION

PE · tension pneumothorax · tamponade

Filling or outflow physically blocked.

Fluids do not treat the cause — definitive treatment requires relief of the obstruction.

WORTH STOPPING ON

Can a shocked patient still have a **normal** blood pressure?

YES — compensated shock exists.

Young, previously well patients hold their systolic pressure by clamping down and speeding up — until they cannot. What gives them away first: **tachycardia · a narrowing pulse pressure · cool mottled peripheries · capillary refill over 2 seconds · a rising respiratory rate · agitation, then drowsiness.**

And in early distributive shock the skin may be *warm*. A warm patient is not a well patient.

▼ Why? — how the mechanism changes what you give

Empty needs volume. **Distribution failure** needs volume, the cause treated, and often vasopressors at the receiving hospital. **Pump failure** and **obstruction** are harmed by an unconsidered fluid bolus: in **pump failure** fluids may worsen pulmonary oedema, so give only when indicated and reassess after every aliquot; in **obstruction** fluids do not treat the cause — definitive treatment requires relief of the obstruction.

No single physical sign proves a mechanism, and more than one can be present at once. The signs raise or lower probability; the history, the ABCDE assessment and the **response to treatment** decide.

There is no rule that every hypotensive patient gets 500 mL.
Fluid is cause-specific — and every dose ends in a reassessment.

• Chapter 05

SAME APPROACH.
DIFFERENT PATIENT.

RECOGNISE → CALL FOR HELP → ABCDE → **TREAT AS YOU FIND** → REASSESS → ESCALATE

Five patients. Six identical questions each. **None of them starts with the diagnosis.** By the last one the sequence should feel automatic — that is the point of the repetition.

HOW THIS IS DELIVERED

Case 1 is the ABCDE walkthrough patient from Chapter 03. It is kept here so the set is complete for reference and self-study, but it is **not run live** — teaching the same patient twice costs eight minutes and adds nothing. **Run cases 2, 3, 4 and 5 live**, eight minutes each. Case 5 — drowning — is a **Lima local priority** and is not optional here.

CASE	THE PATIENT	WHERE THE THREAT IS	THE ONE THING
1 not run live	Breathless, cannot finish a sentence — the Chapter 02 walkthrough patient	• B — Breathing	Repeat the bronchodilator. A quiet chest is not improvement.
2	Collapse minutes after an injection	• A + B + C	IM adrenaline first. **Do not stand or walk.** Lie flat unless breathing difficulty requires sitting with the legs extended.
3	Fever, confusion, poor perfusion	• C — Perfusion	Do not wait for the blood pressure to fall.
4	Convulsing on the floor	• D — Disability	Start the timer. Check the glucose.
5 • Lima local priority	Pulled from the sea, unresponsive	• Hypoxia / ventilation	CPR **with breaths** first. AED second.

1 · Breathless (reference) | 2 · After an injection | 3 · Fever & confusion | 4 · Convulsing | 5 · Drowning

Breathless, cannot finish a sentence — the Chapter 02 walkthrough patient

• B — Breathing

1 · WHAT DO YOU SEE? | 2 · ABCDE — WHERE IS THE THREAT? | 3 · WHAT DO YOU DO NOW? | 4 · AFTER TREATMENT | 5 · WHAT DO YOU REASSESS? | 6 · ESCALATE / TRANSFER

ON ARRIVAL — LIMA PULSE

RR	SPO_2	HR	BP	TEMP	GLUCOSE

A 34-year-old woman, brought in by a relative. Sitting forward, gripping the trolley, speaking three or four words at a time.

Nobody has given you a diagnosis.
Start at A.

• Chapter 06 · 90 seconds of change

Trauma — same system, one change

THE ONLY CHANGE IN THE WHOLE FRAMEWORK

Arterial blood is pumping from a thigh wound onto the road.
The airway is noisy.
Which do you deal with first?

A B C D E → <C> A B C D E

<C> = catastrophic haemorrhage.

Control catastrophic external haemorrhage immediately. Uncontrolled bleeding is the leading cause of preventable death in major trauma. With a team present, **airway assessment proceeds in parallel** — one pair of hands goes to the bleeding while another opens the airway. Alone, control the catastrophic bleeding first, then move to A.

Same systematic thinking. A different first priority when catastrophic bleeding is present.

01

Direct pressure

Both hands, hard, straight onto the bleeding point. Available to every member of staff, and the most under-used intervention we have.

02

Tourniquet if pressure fails

For a limb: apply **proximal to the wound** according to your training, the manufacturer's instructions and local protocol. **Record the time.** It does not come off until someone qualified removes it.

03

Then A B C D E

The framework you already know, unchanged. **<C> is an insertion, not a replacement.**

▼ Why? — the rest of the letters in trauma

A — assess and treat as taught. Consider spinal protection where mechanism or findings indicate, but never at the cost of an open airway; jaw thrust is preferred where cervical injury is possible.

B — look for the major chest threats. If tension pneumothorax is suspected with severe respiratory compromise or haemodynamic instability, urgent skilled treatment is required. **Untrained staff must not attempt invasive decompression** — call the person who can.

C — haemorrhage, perfusion, pulse and pressure. IV/IO access where appropriate. **Avoid indiscriminate large-volume crystalloid in active haemorrhage.** Move towards definitive haemorrhage control and transfer.

D — GCS, pupils, lateralising neurology, glucose. A falling GCS in trauma is a transfer accelerator, not an observation to repeat later.

E — expose enough to find the injuries, including the back, then cover: prevent heat loss, which worsens bleeding. Maintain dignity throughout.

Remember where blood hides from pressure: chest · abdomen · pelvis and retroperitoneum · long bones · the floor. Those patients need a surgeon, and the only treatment we can give is a fast, well-prepared transfer.

Tranexamic acid, where it is given at all, is **time-critical — within 3 hours of injury**, and only within staff scope of practice. For a centre with long road and sea transfers this is the one trauma clock that matters, so know before the day whether we hold it and who may give it. Framework: NICE major trauma guidance for <C>ABCDE. If the patient arrests, transition to the AHA 2025 cardiac arrest pathway.

The 60-second challenge

Scene: a motorcyclist on the coast road. Bright red blood is pumping from a wound on the left thigh and pooling on the tarmac. He is groaning.

60 SECONDS Start the clock Reset

- Control the catastrophic bleeding from the left thigh — direct pressure, then a tourniquet if it fails
- Open and assess the airway with a jaw thrust; consider spinal protection
- Assess breathing — look for the major chest threats
- Assess circulation and perfusion; obtain access; avoid indiscriminate crystalloid
- Assess disability — GCS, pupils, lateralising signs, glucose
- Expose to find injuries, then cover to prevent heat loss

● The last step of the pathway

RECOGNISE → CALL FOR HELP → ABCDE → TREAT AS YOU FIND → REASSESS → ESCALATE

Recognition without escalation is incomplete.

DO NOT SAY

“The patient is not good.”

No severity, no request. The listener hears a story and does not move.

SAY

“I am concerned this patient is critically ill because…”

“…RR 32, saturation 88 on air, NEWS2 of 9. **I need you here now.**”

Who does what — and who may give what

This room holds nurses, doctors, midwives and support staff. **The clinical standard in this lecture is the same for all of you.** What differs is which part of it each person performs — and that is a written, local answer, not a matter of confidence on the day.

THE RULE THAT GOVERNS EVERY CASE IN THIS LECTURE

The standard does not bend to the staffing. A patient in anaphylaxis needs intramuscular adrenaline now, whether the person standing there is a doctor, a nurse or a midwife. What the local job description decides is *who performs which part* — and where it does not permit you to act, your task becomes to **get the person who can, faster**. That is an action, not a delay.

Applies to every drug, dose and procedure named on this page

Immediate · any trained staff

No authorisation needed

- Recognise that the patient is sick and say so out loud
- Call for help — early, by name, with the severity in the first sentence
- Position the patient · open the airway · start CPR
- Attach the monitor, oximeter and defibrillator pads
- Get the emergency trolley and the drug box to the bedside
- Start the clock and write down the times

Nursing

Within nursing scope

- Full ABCDE assessment and NEWS2 scoring
- Oxygen to the correct target
- IV access, bloods and bedside glucose
- Prepare and check drugs, doses and infusions
- Administer within the nursing scope defined at Lima

- Reassess after every intervention and re-escalate if unchanged

Medical

Prescriber / procedure

- Prescribe · confirm the diagnosis · set the plan
- Airway management beyond basic adjuncts
- Cardioversion and transcutaneous pacing
- Procedural sedation and invasive procedures
- Accept clinical responsibility for the transfer decision
- Speak to the receiving centre

THE TWO FAILURES THIS PREVENTS

Acting outside your scope — and **standing still because it is not your scope.** The second is far more common here, and it is not safer. If you cannot give the drug, you can still lay the patient flat, give oxygen, attach the monitor, and put the right person on the phone inside sixty seconds.

⚠ **Who may prescribe and who may administer follows the Lima job descriptions and Oman MOH medication policy.** Before this day is taught, three questions must have written answers at Lima: **(1)** may a nurse give the first IM adrenaline dose in anaphylaxis before a prescription, **(2)** who may give buccal midazolam out of hours, and **(3)** who holds the key to the controlled drugs at 02:00. If any answer is “it depends who is on”, that is the gap — record it in the Corrective Action Register.

Who do you call — at 02:00, in a sandstorm, with the boat out

Fill this in **as a room, on the day**, and photograph it. A pathway nobody can dial at two in the morning is not a pathway.

WHEN YOU NEED…	WHO EXACTLY	HOW YOU REACH THEM	REALISTIC TIME TO ARRIVE
A second pair of hands, now			
The doctor on duty			
The doctor out of hours			
Ambulance — road			
Ambulance — marine			
The receiving hospital			
Controlled-drug access			

WHY THE LAST COLUMN MATTERS

Transfer time is a clinical variable at Lima, not an administrative one. If help is forty minutes away, the decision to call is taken forty minutes earlier — which means it is taken on the *trend*, before the numbers are frankly abnormal. **Distance is the reason this whole day is about recognising early.**

Build one handover

What is wrong · what you found · what you did · the response · **what you need**.

S — Situation

Who you are, where you are, who the patient is, and what is happening now.

This is Sister Neethu at Lima Health Centre. I have a 67-year-old man in the treatment room who I believe is critically ill

B — Background

Relevant history and context — briefly.

Two days of cough and reduced intake. Type 2 diabetic. Brought in confused this morning.

A — Assessment

ABCDE findings, observations, NEWS2, and the response to what you have already given.

Airway patent but at risk. RR 26, saturation 93 on air, HR 118, BP 92/54, temperature 38.9, new confusion. NEWS2 is 13. After

R — Recommendation

Exactly what you need — review, transfer, advice, ambulance or boat activation — and by when.

I need you here now, and I need transfer activated for suspected sepsis. Can you confirm the route and the time?

You know the framework.

NOW USE IT

without the labels.

Simulation A

“This 34-year-old was brought in by a relative. She is struggling to breathe. That is all you know.”

No diagnosis. No confirmation if asked. 8–10 minutes, then a four-step debrief.

Simulation B

“This 67-year-old man was found confused at home this morning. His daughter says he has been unwell for two days.”

Physiology first, label last. A different named leader from Simulation A.

Scored on ten things — and only ten

ABCDE

1 · Recognises critical illness

Not done | Partial | Done

ABCDE 2 · Calls for help early	Not done	Partial	Done
ABCDE 3 · Uses ABCDE systematically	Not done	Partial	Done
TREATMENT & REASSESSMENT 4 · Treats life-threatening abnormalities before moving on	Not done	Partial	Done
TREATMENT & REASSESSMENT 5 · Uses oxygen and ventilation appropriately	Not done	Partial	Done
TREATMENT & REASSESSMENT 6 · Initiates monitoring and access appropriately	Not done	Partial	Done
TREATMENT & REASSESSMENT 7 · Checks glucose when relevant	Not done	Partial	Done
TREATMENT & REASSESSMENT 8 · Reassesses after intervention	Not done	Partial	Done
COMMUNICATION & ESCALATION 9 · Makes an appropriate escalation / transfer decision	Not done	Partial	Done
COMMUNICATION & ESCALATION 10 · Gives structured SBAR communication	Not done	Partial	Done

—	—	—
Overall	ABCDE	Treatment & reassessment

—
Communication & escalation

Scored live by a facilitator who is not running the scenario. No patient-identifiable data. The three sub-scores matter more than the total: a team that scores well on ABCDE and poorly on reassessment and escalation has a specific, fixable problem — and that is exactly the kind of finding the programme's corrective-action register exists for. Full facilitator scripts are in the Day 2 print pack and runbook.

Optional · practice later

Case library

Clinically useful cases that are **not** part of the main teaching narrative — kept here for microlearning, simulation, self-practice and future sessions. **Every one of them runs on the same six questions.**

▼ Open the case library

C — AND THE ECG IS THE INTERVENTION

ACS · chest pain

Central chest pressure for 40 minutes radiating to the jaw. Grey, sweating, nauseated. SpO_2 96% on air — **not hypoxaemic**.

> **12-lead ECG within 10 minutes** of arrival or first medical contact, repeated if the picture changes — the single most important action, and an auditable standard.
>
> ACC/AHA ACS 2025

> **Aspirin** — a widely used guideline loading range is **`162–325 mg chewed`**.
>
> 2025 ACC/AHA/ACEP/NAEMSP/SCAI · LOCAL OMAN MOH / LIMA ACS PROTOCOL TAKES PRECEDENCE

Cardiac monitor with the defibrillator at the bedside · IV access · **oxygen only if hypoxaemic** · urgent referral to the reperfusion-capable pathway · SBAR with the ECG findings in the first sentence.

Pitfall: a normal first ECG does not exclude ACS when suspicion remains high — repeat it. Do not wait for a troponin before moving an obvious STEMI. Do not give oxygen to a

C — TREAT THE PATIENT, THEN THE RHYTHM

Symptomatic bradycardia

72-year-old, dizzy and nearly fainted. **HR 38** regular, BP 82/50, cool peripheries, CRT 3 s. Takes bisoprolol; started a new tablet last week.

Is there cardiopulmonary compromise? Hypotension ✓ · altered mental status · signs of shock ✓ · ischaemic chest discomfort · acute heart failure. **Yes — treat.**

> **Atropine** **`1 mg IV bolus`** · repeat every **`3–5 minutes`** · maximum total **`3 mg`**
>
> AHA 2025 · ADULT BRADYCARDIA WITH A PULSE

> **If ineffective:** transcutaneous pacing and/or an infusion. At Lima **cardioversion and pacing are a doctor role** — nursing recognises instability, attaches monitor and pads, prepares the defibrillator, and calls.
>
> **Dopamine** — **`5–20 mcg/kg/min`** *(weight-based)*
>
> **Epinephrine** — **`2–10 mcg/min`** *(NOT per kg)*
>
> AHA 2025 · TITRATE TO RESPONSE. READ THE UNITS TWICE — ONE OF

saturation of 96% because “it is chest pain”. $P2Y_{12}$ inhibitor, anticoagulation and any fibrinolysis decision follow local protocol and the receiving centre.

> **THESE IS PER KILOGRAM AND ONE IS NOT.**

Reversible causes: ischaemia, drug toxicity (beta-blocker, calcium-channel blocker, digoxin), hypoxia, hyperkalaemia. **Pitfall:** treating the number — an athlete at 42 who feels well needs nothing.

C — STABLE OR UNSTABLE DECIDES EVERYTHING

Tachyarrhythmia with a pulse

Rate typically ≥150/min when the tachyarrhythmia is causing the problem. The same instability criteria as bradycardia.

> **Unstable → synchronised cardioversion**
> Narrow-complex **regular** `100 J` · monomorphic VT `100 J` · atrial fibrillation `200 J` · atrial flutter `200 J` · polymorphic VT `unsynchronised high-energy shock`
>
> AHA 2025 ELECTRICAL CARDIOVERSION ALGORITHM. **THESE CHANGED IN 2025** — OLDER ACLS TAUGHT NARROW REGULAR 50-100 J, AF 120-200 J, FLUTTER 50-100 J. AHA ALSO SAYS TO **FOLLOW YOUR SPECIFIC DEVICE’S RECOMMENDED ENERGY LEVEL**. SEDATE WHEN FEASIBLE, WITHOUT DELAYING URGENT TREATMENT

> **Stable, regular rhythm → adenosine** `6 mg rapid IV push + flush`, then `12 mg` if required
>
> AHA 2025

Never adenosine for an irregular or polymorphic wide-complex rhythm. Wide-complex: adenosine only if regular and monomorphic; otherwise

D — AND THE FASTEST FIX IN MEDICINE

Hypoglycaemia without a seizure

Sweating, confusion, aggression or a reduced conscious level. **Check the glucose in every patient with an altered conscious level** — it costs twenty seconds.

Conscious and safe to swallow: 15–20 g of rapid-acting carbohydrate, recheck at 10–15 min, repeat up to **3 times**; if still under 4.0 mmol/L after 3 cycles or 30–45 min, call for help. Then **20 g of long-acting carbohydrate**, and **do not omit due insulin**.

> **Unconscious, fitting or unable to swallow — Glucose 20% 100 mL IV** over ~15 min, **or Glucose 10% 200 mL IV** over ~15 min `(both = 20 g)`. Recheck at 10 minutes.
>
> JBDS-IP 01, 2023 · 10% AND 20% ARE PREFERRED OVER 50% FOR IV USE

No IV access: glucagon 1 mg IM — less effective in malnutrition, starvation, alcohol excess and liver disease; no second dose; needs 40 g of follow-on carbohydrate. Then find *why* it happened: missed meal, wrong insulin dose, renal impairment, sepsis, alcohol, sulfonylurea (risk persists 24–36 h).

antiarrhythmic infusion and expert consultation.

D — AND THE CLOCK IS THE TREATMENT

Stroke — FAST-positive

Sudden focal neurological deficit. Face · Arm · Speech · Time. **Establish the time last known well** — it decides eligibility for reperfusion at the receiving centre.

ABCDE first — airway is at risk with a reduced conscious level. **Check the glucose**: hypoglycaemia mimics stroke exactly. Then immediate transfer activation with the time last known well stated in the first sentence of the handover.

Reperfusion pathway, imaging access and transfer times are local-protocol questions for this centre.

C — THE MECHANISM IS EMPTY

Upper GI bleeding / haemorrhagic shock

Haematemesis or melaena with tachycardia, cool peripheries and a narrowing pulse pressure. The systolic may still look acceptable.

ABCDE · oxygen as indicated · **two large-bore cannulae** · bloods including group and save/crossmatch where available · fluid in aliquots with reassessment, avoiding indiscriminate large-volume crystalloid · urgent transfer for endoscopy and definitive control.

Compensated shock in a young patient looks acceptable until it does not. Trend the pulse pressure, not the systolic alone.

Peri-arrest rhythms — the two AHA 2025 pathways

Not an ECG course. One principle: **treat the patient, then the rhythm.**

Bradycardia with a pulse

Heart rate typically **<50/min**. Maintain the airway, assist ventilation as necessary, oxygen if hypoxaemic, monitor, IV access, 12-lead ECG.

Cardiopulmonary compromise? Hypotension · acutely altered mental status · signs of shock · ischaemic chest discomfort · acute heart failure.

> **Atropine** `1 mg IV bolus`, repeat every `3–5 min`, maximum total `3 mg`
>
> AHA 2025

> **If ineffective:** transcutaneous pacing and/or an infusion. At Lima **cardioversion and pacing are a doctor role** — nursing recognises instability, attaches monitor and pads, prepares the defibrillator, and calls.
> **Dopamine** — `5–20 mcg/kg/min` *(weight-based)*
> **Epinephrine** — `2–10 mcg/min` *(NOT per kg)*
>
> AHA 2025 · TITRATE TO RESPONSE. READ THE UNITS TWICE — ONE OF THESE IS PER KILOGRAM AND ONE IS NOT.

Treat reversible causes — ischaemia, drug toxicity, hypoxia, hyperkalaemia. Refractory unstable bradycardia may need temporary transvenous pacing at the receiving hospital.

Tachyarrhythmia with a pulse

Heart rate typically **≥150/min** when the tachyarrhythmia is causing the problem. Airway and breathing support, oxygen if hypoxaemic, monitor, BP and oximetry, IV access, 12-lead ECG when available.

Causing instability? Hypotension · acutely altered mental status · signs of shock · ischaemic chest discomfort · acute heart failure.

> **Unstable → synchronised cardioversion**
> Narrow-complex **regular** `100 J` · monomorphic VT `100 J` · atrial fibrillation `200 J` · atrial flutter `200 J` · polymorphic VT `unsynchronised high-energy shock`
>
> AHA 2025 ELECTRICAL CARDIOVERSION ALGORITHM. THESE CHANGED IN 2025 — OLDER ACLS TAUGHT NARROW REGULAR 50-100 J, AF 120-200 J, FLUTTER 50-100 J. AHA ALSO SAYS TO FOLLOW YOUR SPECIFIC DEVICE'S RECOMMENDED ENERGY LEVEL. SEDATE WHEN FEASIBLE, WITHOUT DELAYING URGENT TREATMENT

> **Stable, regular rhythm → adenosine** `6 mg rapid IV push + flush`, then `12 mg` if required
>
> AHA 2025

Narrow, regular: vagal manoeuvres → adenosine → beta-blocker or calcium-channel blocker → expert consultation. **Wide-complex:** adenosine *only* if

regular and monomorphic; otherwise antiarrhythmic infusion and expert consultation. Never adenosine for an irregular or polymorphic wide-complex rhythm.

Stability challenge — four rhythms, five questions each

Rhythm 1 | Rhythm 2 | Rhythm 3 | Rhythm 4

THE FIVE QUESTIONS	ANSWER
1 · Fast or slow?	Slow (~38/min)
2 · Regular or irregular?	Regular
3 · Narrow or wide?	Narrow
4 · Is the PATIENT stable?	**The question that decides everything.** Hypotension · altered mental status · shock · ischaemic chest discomfort · acute heart failure.

Rhythm: **Sinus bradycardia** · AHA 2025

THE FIVE QUESTIONS	ANSWER
5 · Immediate action	**Depends entirely on the patient.** No compromise → identify the cause, monitor, 12-lead ECG, observe. Compromise present → atropine 1 mg IV, repeated every 3–5 min to a maximum of 3 mg; if ineffective, transcutaneous pacing and/or dopamine 5–20 mcg/kg/min or epinephrine 2–10 mcg/min.

• Take home

THE PATIENT LOOKS SICK.

01

RECOGNISE

02

CALL FOR HELP

03

ABCDE

04

TREAT AS YOU FIND

05

REASSESS

06

ESCALATE

THE DIAGNOSIS MAY CHANGE.
THE SYSTEMATIC APPROACH DOESN'T.

RECOGNISE BEFORE COLLAPSE.

LIMA PULSE · Day 2 · Lima Primary Health Centre

• Assessment

Twenty questions, twice

The same twenty items before the teaching and after it. The gap between the two is the only evidence that today changed anything.

How it works

Twenty single-best-answer items across triage, ABCDE, NEWS2, shock, the five core cases including drowning, peri-arrest rhythms and trauma. **PRE mode hides the answers.** POST mode shows the score, the domain breakdown, the pre-to-post delta and a short explanation for every item. Everything runs in the browser; the result file is downloaded and given to the trainer.

20
single-best-answer items

7
domains covered

80%
programme target

~8 min
to complete

• Governance

Clinical framework and references

Precedence: Oman MOH guidance → device and manufacturer instructions → the guideline sources below → the treating clinician's judgement for the patient in front of them.

THE RULE THIS PROGRAMME DOES NOT BREAK

AHA 2025 is the LIMA PULSE resuscitation and peri-arrest framework. Resuscitation Council UK is used only as an educational source for the ABCDE assessment structure. AHA and ERC/RCUK cardiac-arrest and peri-arrest algorithms are never mixed. If a patient arrests in any scenario, we move to the AHA 2025 pathway taught on Day 1.

Lima holds no hospital-style local protocol document. Where earlier versions of this lecture deferred a number to "local protocol", it now states the *guideline* position and names the source. That makes this a **clinical reference** — it is not a prescribing authorisation, it creates no nurse-initiated administration authority, and the treating clinician remains responsible for the decision in front of them.

▼ Full reference list

Resuscitation Council UK

The ABCDE Approach — educational framework for systematic assessment of the deteriorating patient. Used here for the assessment structure only.

American Heart Association

2025 Guidelines for CPR and Emergency Cardiovascular Care — the LIMA PULSE resuscitation and peri-arrest framework, including the Adult Bradycardia, Adult Tachyarrhythmia and Electrical Cardioversion algorithms, and Special Circumstances (drowning — taught as Case 5).

Royal College of Physicians

National Early Warning Score (NEWS) 2 — score logic reproduced unaltered in an original calculator.

Surviving Sepsis Campaign

International Guidelines for Management of Sepsis and Septic Shock, adult guidelines 2026.

Global Initiative for Asthma

Global Strategy for Asthma Management and Prevention / Summary Guide, 2026.

ACC/AHA/ACEP/NAEMSP/SCAI

2025 Guideline for the Management of Patients With Acute Coronary Syndromes.

NICE NG217

Epilepsies in children, young people and adults — treating convulsive status epilepticus.

NICE NG39

Major trauma: assessment and initial management — the <C>ABCDE sequence.

Joint British Diabetes Societies

JBDS-IP 01 — The hospital management of hypoglycaemia in adults with diabetes mellitus, 2023. Source of the glucose 20% / 10% figures and the position on 50%.

World Health Organization

AWaRe antibiotic book — Access / Watch / Reserve classification and empiric first-choice regimens, designed for settings without a local antibiotic protocol.

Oman Ministry of Health

Policy of the Oman National System for Emergency Triage (ONSET) in Hospitals, 2019 — the national five-level emergency triage scale, **derived from the Emergency Severity Index and modified for the Omani health system**. ONSET remains referenced in Oman MOH emergency guidance published in 2025. **Where Oman MOH guidance exists it takes precedence over every source above.** The ONSET policy's own scope is MOH institutions with Emergency Departments; Lima holds no hospital-style local protocol document, so the guidelines named here are the reference standard, ONSET level definitions and response times follow current approved MOH / Musandam policy, and the treating clinician remains responsible for the decision in front of them.

Oman National Formulary (ONF)

The official Oman drug index and the **governing source for medication doses** in MOH institutions. Where ONF and an international guideline differ on a dose, **ONF and the local formulary take precedence**; the guideline still governs the clinical decision to treat. **Confirm every dose in this material against the current ONF edition before delivery.**

▼ Items that depend on local policy — confirm before delivery

HOW THIS LECTURE HANDLES AUTHORITY

The clinical standard is stated in full, from the named guideline, without hedging. That standard is the same for everyone in the room. What differs is *who performs which part of it* — and that is shown separately, in the three-lane role map that appears in every case.

Lima holds no hospital-style local protocol document, so the guidelines named here are the reference standard. **Prescribing authority and administration rights follow the Lima job descriptions and Oman MOH medication policy** — they change who acts, never what the right action is.

ITEM	CONFIRMED POSITION
Convulsive status epilepticus	**Diazepam 10 mg IV** (max 5 mg/min; 5 mg if elderly or <50 kg), or **midazolam 10 mg buccal** if no IV access. Maximum **two** doses. **No second-line IV agent is held.** After two doses this is established status epilepticus: urgent expert support, airway and breathing support, second-line therapy where available and authorised, and immediate transfer in parallel. **Recorded as a readiness gap.**
Hypoglycaemia	Lima stocks glucose **10%, 20% and 50%**. Teaching default: **20% 100 mL** or **10% 200 mL** IV over ~15 min (JBDS 2023). 50% is a fallback only — hypertonic, risk of extravasation necrosis.
IV antimicrobials held	**Ceftriaxone · ampicillin · metronidazole.** No aminoglycoside, macrolide, antipseudomonal, MRSA or antifungal cover. **The WHO AWaRe first-choice regimen cannot be completed on site** for severe CAP, severe pyelonephritis, undifferentiated sepsis or neutropenic sepsis.
Airway management	Performed by **doctors**. Nursing staff support: positioning, suction, oxygen, bag-mask ventilation within their training, and calling early.
Cardioversion and pacing	Performed by **doctors**. Nursing staff: recognise instability, attach the monitor and pads, prepare the defibrillator, and call.
Antimicrobial selection	A **prescriber** decision, made from the suspected source, severity, allergy history and resistance patterns.
Nurse-initiated doses	Whether any drug may be given by a nurse before a prescription — **IM adrenaline in anaphylaxis above all** — is a Lima job-description question. Settle it in writing.

Still open — these need a decision, not a guideline

#	WHERE IT APPEARS	WHAT IS STILL NEEDED
1	Part 1 · Triage	ONSET category definitions and target waiting times as adopted at Lima, and who triages on each shift.
2	Part 1 · Escalation	The escalation route — who is called, by what method, within what timeframe, and who deputises out of hours.
3	Case 2 · Anaphylaxis	Where the adrenaline ampoules are stored and who may draw one up.
4	Case 1 · Asthma	Confirm what is stocked: spacer, nebuliser, ipratropium, oral prednisolone, and the formulary strengths.
5	Library · ACS	The reperfusion / transfer pathway and **realistic** transfer times by road and by sea, in the weather actually encountered.
6	Trauma	Whether tourniquets and a pelvic binder are held, who is trained to apply them, and TXA scope of practice.
7	Drowning (Case 5)	Who the trained water rescue is and how they are activated out of hours.
8	Throughout	Whether the defibrillator has synchronised mode and pacing, and which doctors are trained on them.
9	Sepsis	**Formulary gap** — no aminoglycoside or macrolide. Needs an owner, a decision, and a re-audit date.
10	Governance	Two named clinical reviewers — medical and nursing / resuscitation lead.

▼ Version record

FIELD	VALUE
Artifact	LIMA PULSE Day 2 — Recognise Before Collapse (interactive lecture)
Version	**3.2 · Final Release Candidate · August 2026** — five-case architecture (drowning is Case 5, Lima local priority); status epilepticus wording corrected to established status epilepticus with second-line therapy where available; ONSET referencing made precise; anonymised Al Shifa screenshots added; live-teaching layer shortened with clinician-reference panels; ONF named as the governing dose source.
Status	**WORKING** — not yet clinically approved. Requires line-by-line clinical review and confirmation of every local-policy item above before delivery.
Clinical framework	Oman National Formulary (doses) · AHA 2025 (resuscitation / peri-arrest) · RCUK ABCDE (assessment structure) · RCP NEWS2 · SSC 2026 · GINA 2026 · ACC/AHA ACS 2025 · NICE NG217 · NICE NG39
Reviewers	`[name needed]` — medical · `[name needed]` — nursing / resuscitation lead

STRONGER FIRST RESPONSE.
SAFER NEXT STEP.

LIMA PULSE · Emergency Care Readiness Programme · Day 2 — Recognise Before Collapse
Lima Primary Health Centre · **Developed by the LIMA PULSE Team**
Programme lead and author: Dr Karim Ghonim · clinical review: `[names pending]`
Educational resource for trained healthcare staff. Current Oman MOH / local approved protocols and clinician judgement take precedence.

Version 3.2 · Final Release Candidate · August 2026
Next: Day 3 — Paediatric Emergencies