

The Overloaded Processor



**How to Simplify Complex Clinical
Decisions Under Pressure**



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You are the Overloaded Processor

As a clinician, you may find yourself trying to hold too much information in your head at once.

You are thorough.

You notice details.

You consider multiple possibilities.

That is a strength.

But in emergency medicine, complexity can quickly become overwhelming. When too many variables compete for attention, the problem is no longer knowledge. The problem is processing.

In my experience working in emergency medicine, cognitive overload is common in clinicians who care deeply about getting things right. They do not cut corners. They do not ignore risk. They often see more than others.

But under pressure, trying to process everything equally can slow decision-making, increase stress, and make it harder to recognise what matters most.

The key is not to think less.

The key is to structure your thinking.

Section 1: Understanding Cognitive Overload

Cognitive overload happens when the amount of information you are trying to process exceeds your ability to prioritise it clearly in real time.

As an Overloaded Processor, you might find that:

- You hold too many possible diagnoses in mind at once
- You struggle to decide which information matters most
- You feel mentally drained after complex cases
- You revisit the same possibilities repeatedly
- You find it hard to move from assessment to action

These patterns are often rooted in a desire to be thorough.

That is understandable.

But in emergency care, not all information has equal value at the same moment.

Some things are critical.

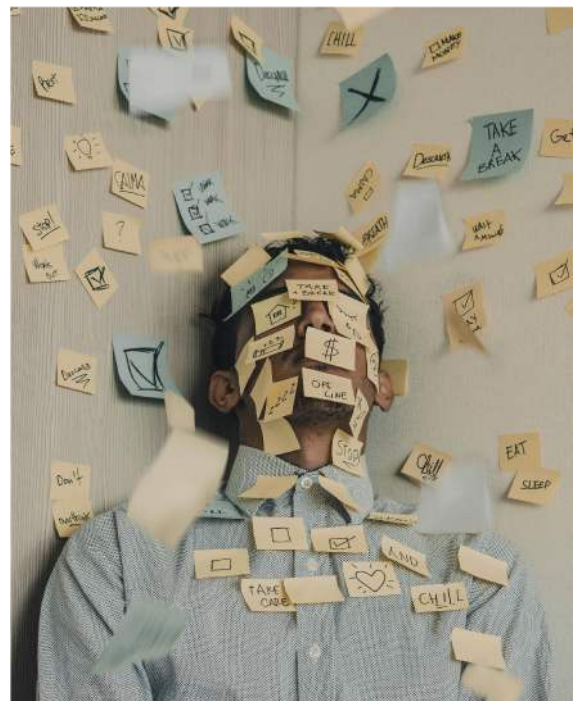
Some things are relevant but not urgent.

Some things can wait.

The challenge is knowing which is which.

Section 2: Practical Steps to Reduce Cognitive Load

Here's how you can start simplifying complex clinical decisions without becoming superficial or unsafe.



1. Use the "Top 3 Rule"

When a case feels complex, force yourself to name your top three active concerns.

Not ten.

Not every theoretical possibility.

Three

Ask:

What are the three most important possibilities I need to hold in mind right now?

This helps you move from scattered thinking to focused clinical reasoning.

2. Separate Critical from Non-Critical

Ask:

What must I not miss?

What can safely wait?

This is one of the most important distinctions in emergency care.

A minor abnormality may matter later.

A threat to airway, breathing, circulation, consciousness, or perfusion matters now.

This filter helps you prioritise the patient in front of you, not the entire textbook.

3. Externalise Your Thinking

When your mind feels full, get the thinking out of your head.

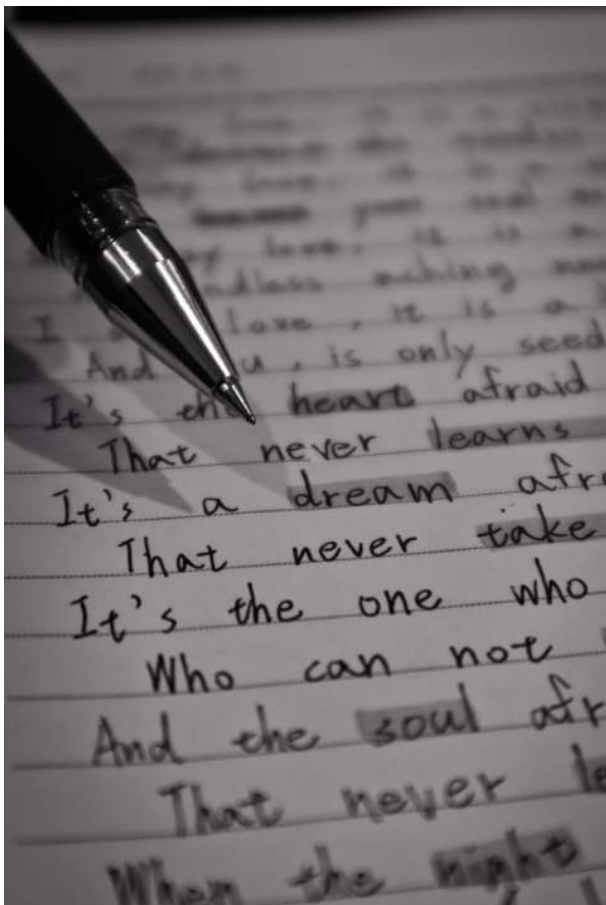
Write it down.

Say it out loud.

Summarise it to a colleague.

For example:

“My top concerns are sepsis, PE, and pneumonia. Right now, I’m most worried about sepsis because of the physiology.”



Externalising reduces mental load instantly.

It also makes your reasoning easier to test.

4. Anchor Yourself in Physiology

When the information feels overwhelming, return to the basics.

Ask:

Is the patient stable or unstable?

This question cuts through complexity.

Before you solve the diagnosis, decide whether the patient is physiologically safe.



5. Decide the Next Safe Action

You do not need to solve the entire case immediately.

You need to identify the next action that makes the patient safer.

That might be:

- Oxygen
- Fluids
- Analgesia
- Antibiotics
- Senior review
- Monitoring
- Moving the patient to a higher-acuity area

The next safe step often matters more than the perfect complete plan.

Section 3: A Quick Win - Apply to a Clinical Case

Case Study: The Breathless Older Patient

You are asked to assess a 76-year-old man in the emergency department.

He presents with:

- Shortness of breath
- Mild confusion
- Temperature 38.1°C
- Respiratory rate 26
- Oxygen saturations 93% on air
- Heart rate 112
- Blood pressure 104/68

His past medical history includes COPD, heart failure, and type 2 diabetes.

The nurse says:

“He just doesn’t seem quite right.”

As an Overloaded Processor, you may immediately feel several possibilities competing for attention:

- Pneumonia
- COPD exacerbation
- Heart failure
- Sepsis
- Pulmonary embolism
- Acute coronary syndrome
- Delirium
- Dehydration
- Medication effect

All of these may be relevant, but processing them equally will slow you down

Instead, apply the RADIAL framework.

RADIAL Framework

R — Recognise instability

Stable vs unstable?

A — ABCDE prioritisation

What kills first?

D — Define worst-case risk

What can't be missed?

I — Identify contradictions

What doesn't fit?

A — Act & escalate

What needs action now?

L — Loop reassess

What has changed?

RADIAL CASE BREAKDOWN

R - Recognise Instability

The patient is not profoundly shocked, but there are early signs of physiological concern.

His respiratory rate is raised.

His heart rate is raised.

His blood pressure is borderline.

He is mildly confused.



These are not isolated details.

Together, they suggest possible early deterioration.

Clinical step:

Do not label this as “just COPD” or “just confusion.” First decide whether he is physiologically safe.

Key question:

Is this patient stable, or beginning to deteriorate?



A - ABCDE Prioritisation

Airway appears patent, but breathing and circulation need immediate attention.

Clinical priorities:

- Check work of breathing
- Apply oxygen if clinically indicated
- Assess chest findings
- Establish IV access
- Check capillary refill and peripheral perfusion
- Review conscious level
- Start monitoring

This keeps your focus on what can harm the patient first.

Clinical step:

Use ABCDE to reduce complexity. You do not need to solve every diagnosis before treating immediate physiological risk.

D - Define Worst-Case Risk

In this case, the worst-case risks include:

- Sepsis
- Type 2 respiratory failure
- Pulmonary embolism
- Acute coronary syndrome
- Decompensated heart failure

You do not need to prove all of them immediately.

But you do need to decide which ones cannot be missed.

Clinical step:

Name the top three dangerous possibilities and prioritise action around them.

For this patient:

1. Sepsis
2. Respiratory failure
3. Cardiac pathology

This reduces the mental noise.



I - Identify Contradictions

Now ask:

What doesn't fit?

If this is "just COPD," why is he confused?

If this is "just heart failure," why is he febrile?

If this is "just infection," why is the blood pressure borderline?

Contradictions prevent you from oversimplifying.

Clinical step:

Use contradictions to refine your thinking, not expand endlessly.

The aim is not to add ten more diagnoses.

The aim is to identify the few features that change risk.

A - Act & Escalate

The next safe actions may include:

- Oxygen titrated appropriately
- Blood gas if respiratory failure is possible
- Blood cultures and lactate if sepsis is suspected
- Chest X-ray
- ECG
- IV fluids if clinically indicated
- Antibiotics if sepsis is likely
- Senior review if physiological concern persists

The key is to act on risk while continuing to think.

Clinical step:

Do not wait until every possibility is processed. Choose the next actions that reduce immediate danger.

L - Loop & Reassess

After initial treatment, reassess.

Has the respiratory rate improved?

Has oxygen requirement changed?

Is the confusion improving?

Is the blood pressure stable?

Has the blood gas changed your risk assessment?

The diagnosis may evolve.

The patient may declare themselves.

Clinical step:

Reassess after every intervention and restart the loop if new information appears.

Key Learning

By using RADIAL, you did not ignore complexity.

You organised it.

You moved from:

“There are too many possibilities.”

To:

“These are the risks that matter first, and this is the next safe action.”

That is the core skill for the Overloaded Processor.

The RADIAL Clinical Thinking Playbook

A structured clinical thinking loop for recognising risk, prioritising decisions, and acting safely under pressure.

Call to Action

The RADIAL Clinical Thinking Playbook is the next step.

It gives you a practical framework to recognise instability, prioritise risk, identify contradictions, act safely, and reassess as the situation evolves.

Final Line

When everything feels important, pause.

Do not process everything equally.

Run the loop.

