APPROACH TO CONFUSION

CONFUSION IMPLIES AN ALTERATION IN HIGHER CEREBRAL FUNCTION → MEMORY, ATTENTION OR AWARENESS. IMPLICIT IN THE DEFINITION IS A RECENT CHANGE IN BEHAVIOUR

IN THE EXTREME STATE → DELIRIUM, WHICH MAY BE HYPERACTIVE (↑ALERTNESS, PSYCHOMOTOR ACTIVITY AND DISORIENTATION) AND HYPOACTIVE (REDUCTION IN ALERTNESS AND BEHAVIOUR)

OCCURS IN 2% OF ALL E.D. PRESENTATIONS AND UP TO 50% OF HOSPITALISED ELDERLY

DIAGNOSTIC APPROACH:

FOUR GROUPS OF DISORDERS:

1. SYSTEMIC DISEASES SECONDARILY AFFECTING THE CNS
2. PRIMARY INTRACRANIAL DISEASE
3. EXOGENOUS TOXINS
4. DRUG WITHDRAWAL STATES

Focal cortical dysfunction typically does not cause confusion, although exceptions are encountered

RAPID ASSESSMENT AND STABILISATION:

- Most patients with acute confusion do not require immediate intervention → obvious exceptions being ↓BSL, ↓O2 and shock
- Protect patient from harm (self and others)
- In patients with abnormal vital signs, attention is directed towards management of underlying cause, which should treat their confusion as well

HISTORY:

- Often reported by family members or carers "they are not quite right"
- ATTENTION DEFICIT is the common denominator in confusional states
- Duration of symptoms, onset, changes in medications and recent illness all important
- Hallucination → tend to be powerful, fleeting and poorly organised visual hallucination
- Differentiate from PSYCHOSIS → a disorder of reality testing and thought organisation severe enough to interfere with normal daily functioning → cognitioin, orientation and attention should be normal unless severe
- History of substance abuse should be sought → esp cessation of benzos

PHYSICAL EXAMINATION:

- Confusion may be obvious at the bedside, but specific screening tools may be of assistance
    - MMSE

- QUICK CONFUSION SCALE (more appropriate in ED setting with similar sensitivity to MMSE

ORIENTATION TO TIME "What is the date?"
REGISTRATION "Listen carefully. I am going to say three words. You say them back after I stop. Ready? Here they are . . . HOUSE (pause), CAR (pause), LAKE (pause). Now repeat those words back to me." [Repeat up to 5 times, but score only the first trial.]
NAMING "What is this?" [Point to a pencil or pen.]
READING "Please read this and do what it says." [Show examinee the words on the stimulus form.] CLOSE YOUR EYES

MMSE

ITEM	SCORE (highest number in category indicates correct response; decreased scoring indicates increased number of errors)	WEIGHT	SCORE
What year is it now?	0 or 1 (score 1 if correct; 0 if incorrect)	x2	
What month is it?	0 or 1 (score 1 if correct; 0 if incorrect)	x2	
Repeat phrase and remember it: "John Brown, 42 Market Street, New York"			
About what time is it? (answer correct if within the hour)	0 or 1 (score 1 if correct; 0 if incorrect)	x2	
Count backwards from 20 to 1	0, 1, or 2 (score 2 if correct; 1 if 1 error; score 0 if more than 2 errors)	x1	
Say the months in reverse	0, 1, or 2 (score 2 if correct; 1 if 1 error; score 0 if more than 2 errors)	x1	
Repeat the memory phrase (each underlined portion is worth 1 point)	0, 1, 2, 3, 4, 5 (score 5 if correctly performed; each error drops score by one)	x1	
		TOTAL	____

Final score is sum of the totals; score less than 15 suggests the presence of altered cognition and need for further assessment.

QUICK CONFUSION SCALE

Spell "world" backwards is a quick test of attention

- Examination may suggest a cause of confusion → pneumonia, CCF, focal neurological findings, asterixis

LABORATORY TESTS:

- Simple bedside tests → OXIMETRY, BSL, TEMPERATURE
- Urinalysis/CXR
- Serum electrolytes → esp sodium
- ECG (AMI may only have confusion as presenting complaint)
- TFT, calcium, ammonia (not great)
- Selected drug/toxin levels
- CT brain (non contrast) usually done to screen for CNS lesions

DIFFERENTIAL DIAGNOSIS:

- CRITICAL DIAGNOSES:
    - Hypoxia/diffuse cerebral ischaemia → multiple causes (resp failure, CCF, AMI, shock)
    - Hypoglycaemia
    - CNS infections
    - Hypertensive encephalopathy
    - Raised ICP
- EMERGENT DIAGNOSES:
    - Hypoxia
    - Systemic illness → electrolyte/fluid disturbance, endocrine (thyroid, adrenal), hepatic failure, Wernickes', sepsis/infection
    - Intoxication/withdrawal → CNS sedative, ethanol, anticholinergics
    - CNS disease→ Trauma, infection, stroke, SAH, epilepsy
    - Neoplasm

EMPIRICAL MANAGEMENT:

- Ideally, management is directed at the underlying cause of confusion
- Most febrile patients have source of sepsis → pneumonia, UTI most likely → early antibiotics
- Postictal confusion is common but SHOULD IMPROVE within 20-30 minutes
- Consider environmental manipulations (dim lighting/one-one nursing