
# *Myths and Facts*

Dr Julie Highfield
Consultant Clinical Psychologist
@DrJulie_H

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## It doesn't exist!

Myth 1

## Prevalence

- Can be difficult to recognise- linked with complex underlying medical conditions
- Non-detection rates are typically around 33-66%
- Among the most common mental disorders experienced by patients with medical illness(es)- especially in older adults
- Occurs in 29% to 64% of medical in-patients
- About 2 in 3 patients in ITU get delirium
- Seven in 10 patients get delirium while on ventilators or soon after

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## Its confusion
## Its agitation

Myth 2

DELIRIUM is an acutely changing or fluctuating mental status, inattention, disorganised thinking and altered level of consciousness

Develops over a short period of time and tends to fluctuate over the course of the day

**Hyperactive delirium:**
- Poor attention span
- Cannot consistently organise thought
- restlessness
- Agitation
- hallucinations, delusions, paranoia
- disorientation

**Hypoactive delirium**:
- slower psychomotor function
- Lethargy
- confusion
- reduced awareness
- poor attention span
- Delusions, paranoia, nightmares, hallucinations
- Withdrawn
- apathetic
- often *misdiagnosed* as depression.

There are two main types, but many patients have a mixed presentation and fluctuate between the two types

*In addition to my paranoid delusions of people trying to kill me, were hallucinations of ants on peoples' faces, weird things in my IV fluid bags, nightmare-like hallucinations*

# 3

# The patient is depressed
# The patient has dementia

Myth 3

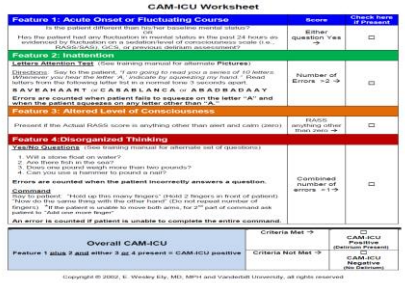
- *These hallucinations along with the awful things that were happening "for real" finally got me to a point where I thought, I have to give up, I will either die or live but I can't fight anymore.*

| | Depression | Delirium | Dementia |
|---|---|---|---|
| Onset | Relatively quickly- days to weeks | Rapid- hours to days | Slow |
| assessment | Mood screen | CAM-ICU- | ACE-R |
| Cause/ history | Psychological, except in chronic organic depression | physiological | physiological |
| Cognition | Can organise thinking<br>Can pay attention, but poor concentration<br>Difficulty remembering details<br>Difficulty making decisions<br>Thinking may be slowed | "clouded"<br>Disorientation<br>Cannot pay attention<br>Cannot organise thought<br>Difficulty engaging in conversation<br>Poor recall | Memory problems<br>Trouble in recall<br>Trouble in word finding<br>Problems in planning/ carrying out |
| Thought content | Negative about self<br>Negative about prognosis/ future<br>Hopelessness<br>Pessimism<br>Thoughts of suicide | "Psychotic" symptoms possible- paranoia, hallucinations | |
| Motivation | Loss of interest | Not connecting or making meaning in activity<br>Passive or active resistance | May have initiation problems |
| Mood | Consistently low for 2wks + | Anxious<br>May be agitated<br>May be withdrawn | Trouble regulating mood<br>May have co-morbid depression & anxiety<br>May experience agitation |
| Treatment | May be responsive to antidepressants within 2 wks<br>May be responsive to increased activity<br>Psychological therapy | Responsive to environmental changes:<br>Orientation & information<br>Reduce disruption- noise, moving excessively<br>Sleep wake cycle | |

# 4

# Its hard to assess

Myth 4



CAM-ICU Worksheet

| Feature 1: Acute Onset or Fluctuating Course | Score | Check here if Present |
|---|---|---|
| Is the patient different than his baseline mental status?<br>OR<br>Has the patient had any fluctuation in mental status in the past 24 hours as evidenced by fluctuation on a sedation/level of consciousness scale (i.e., RASS/SAS/ GCS, or previous delirium assessment)? | Either question Yes → | ☐ |
| **Feature 2: Inattention** | | |
| **Letters Attention Test** (See training manual for alternate Pictures)<br>Directions: Say to the patient, *"I am going to read you a series of 10 letters. Every time I say the letter "A", squeeze my hand."* Read 10 letters from the following letter list in a normal tone 1 second apart<br>**S A V E A H A A R T** or **C A S A B L A N C A** or **A B A D R A B A D A A Y**<br>**Errors are counted when patient fails to squeeze on the letter "A" and when the patient squeezes on any letter other than "A."** | Number of Errors >2 → | ☐ |
| **Feature 3: Altered Level of Consciousness** | | |
| Present if the Actual RASS score is anything other than alert and calm (zero) | RASS anything other than zero → | ☐ |
| **Feature 4 Disorganized Thinking** | | |
| **Yes/No Questions** (See training manual for alternate set of questions)<br>1. Will a stone float on water?<br>2. Are there fish in the sea?<br>3. Does one pound weigh more than two pounds?<br>4. Can you use a hammer to pound a nail?<br>**Errors are counted when the patient incorrectly answers a question.**<br>**Command**<br>Say to patient: "Hold up this many fingers" (Hold 2 fingers in front of patient) "Now do the same thing with the other hand" (Do not repeat number of fingers). "If the patient is unable to move both arms, for 2nd part of command ask patient to "Add one more finger"<br>**An error is counted if patient is unable to complete the entire command.** | Combined number of errors →1-9 | ☐ |
| **Overall CAM-ICU** | Criteria Met → | ☐ CAM-ICU Positive (Delirium Present) |
| **Feature 1 plus 2 and either 3 or 4 present = CAM-ICU positive** | Criteria Not Met → | ☐ CAM-ICU Negative (No Delirium) |

## The ICDSC

**SCORING SYSTEM :**
The scale is completed based on information collected from each entire 8-hour shift or from the previous 24 hours.
Obvious manifestation of an item = 1 point. No manifestation of an item or no assessment possible = 0 point.
The score of each item is entered in the corresponding empty box and is 0 or 1.

1. Altered level of consciousness:
A) No response or B) the need for vigorous stimulation in order to obtain any response signified a severe alteration in the level of consciousness precluding evaluation. If there is coma (A) or stupor (B) most of the time period then a dash (-) is entered and there is no further evaluation during that period.
C) Drowsiness or requirement of a mild to moderate stimulation for a response implies an altered level of consciousness and scores 1 point.
D) Wakefulness or sleeping state that could easily be aroused is considered normal and scores no point.
E) Hypervigilance is rated as an abnormal level of consciousness and scores 1 point.

2. Inattention: Difficulty in following a conversation or instructions. Easily distracted by external stimuli. Difficulty in shifting focuses. Any of these scores 1 point.

3. Disorientation: Any obvious mistake in time, place or person scores 1 point.

4. Hallucination, delusion or psychosis: The unequivocal clinical manifestation of hallucination or of behaviour probably due to hallucination (e.g. trying to catch a non-existent object) or delusion. Gross impairment in reality testing. Any of these scores 1 point.

5. Psychomotor agitation or retardation: Hyperactivity requiring the use of additional sedative drugs or restraints in order to control potential dangerousness (e.g. pulling out iv lines, hitting staff). Hypoactivity or clinically noticeable psychomotor slowing. Any of these scores 1 point.

6. Inappropriate speech or mood: Inappropriate, disorganised or incoherent speech. Inappropriate display of emotion related to events or situation. Any of these scores 1 point.

7. Sleep/wake cycle disturbance: Sleeping less than 4 hours or waking frequently at night (do not consider wakefulness initiated by medical staff or loud environment). Sleeping during most of the day. Any of these scores 1 point.

8. Symptom fluctuation: Fluctuation of the manifestation of any item or symptom over 24 hours (e.g. from one shift to another) scores 1 point.

## Guidelines

NICE guidelines CG103 on delirium: diagnosis, prevention and management

GPICS- "All patients will be screened for delirium"

# 5

# It doesn't matter

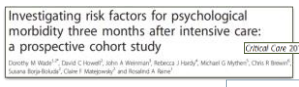
Myth 5


- Prolonged ICU stay
  - Prolonged time on mechanical ventilation
  - Prolonged Ward Stay
- Increase in healthcare costs
- Higher mortality
  - Each day of delirium in the ICU increases the hazard of mortality by 10%- Pisani. 2009
- Psychological impacts:
  - Psychological trauma
  - Cognitive impairment (Delirium in the ICU is an independent risk factor- Pandharipande 2013)

## Psychological Outcomes

- *"One quite literally loses one's grip on what is true and what is false because the true and the false are mixed together in a mess of experience."*
- Everyday life experiences become distorted
- Generate feelings of being disconnected
- Fear and safety concerns-
- Lack of recall accompanied by feelings of guilt and shame

## Delirium related distress in ICU


Investigating risk factors for psychological morbidity three months after intensive care: a prospective cohort study

Critical Care 2012, 16:R192


Intrusive memories of hallucinations and delusions in traumatized intensive care patients: An interview study

Dorothy M. Wade[1,2*], Chris R. Brewin[2], David C. J. Howell[1], Emily White[1], Michael G. Wyther[1] and John A. Weinman[3]

- Acute distress linked to delirium strongest predictor of psychological outcome (mood, alcohol abuse & cognitive function)

88% of critical care patients with PTSD had hallucinatory or delusional flashbacks from ICU delirium (not real memories).

## Welsh Prevalence Data

Network funded pilot 2017

| | Total (N=73) | Research |
|---|---|---|
| Clinical Anxiety | 29% | 34% |
| Clinical depression | 23% | 28% |
| Post traumatic Stress | 25% | 24-64% |
| Cognitive Issues | 40% | 30-80% |
| Depression, anxiety, PTSD combined | 14% | |

38% of follow up patients showed any clinically significant psychological distress concerns
54% of patients with psychological history went on to experience post critical care psychological symptoms
36% were new onset.

## Just because you are paranoid, it does not mean they are (not) after you….

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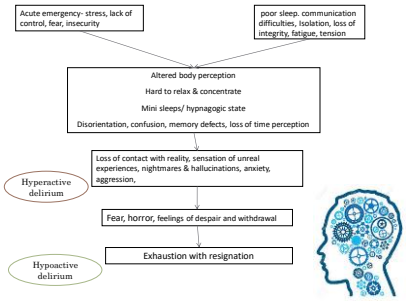
Myth 6

## Psychotic content reflects the environment




## You cannot treat it

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Myth 7

## Management

- Clinical practice guidelines for the management of pain, agitation and delirium in adult patients in the intensive care unit
  - Barr J, et al. Crit Care Med. 2013;41:263–306
- No specific treatment recommendations
- No magic drug
- Strategy more than agents
- Removing cause more than treating the symptoms .

## ABCDEF icudelirium.cog

| | |
|---|---|
| **A B** | • Awake and Breathing Coordination |
| **C** | • Choose light sedation & avoid benzos |
| **D** | • Delirium monitoring & management |
| **E** | • Early Mobility & Environment |
| **F** | • Family Involvement |

## Recognise and manage/ treat underlying causes

- Lack of sleep
- Post operative
- Pain
  - Sepsis
- Metabolic/Electrolyte disorders
  - Alcohol
  - Recreational drugs
  - Hypoxia
  - Sedatives


## Environment & attitude

- AWAKE IN THE DAY- ASLEEP AT NIGHT: Light/ Sound / Stimulation
- Are you a "safe" pair of hands?

**Orientation**
Poor speed of info processing
Poor memory
Continuity
Visual/ auditory aids
communication

**Delusions & hallucinations**
Ask
Gently question, dont challenge
Normalise bad dream/ weird experiences

## Sleep

Benzodiazepines and propofol

Non- clustered care- awake patient every 15 mins

promote stage 1 and II

suppress stages III and REM sleep

Stage III & REM is important for laying down & integration of factual memories

These have rebound effects of nightmares after medication withdrawal

This sleep disturbance can lead to hallucinations & paranoid delusions

Patients may enter a hypnagogic state during treatment- boundary between internal fantasy and external reality is blurred

## Medical Management: CAV (up for debate!)

HYPERACTIVE / MIXED DELIRIUM:

- **1ST LINE** – Haloperidol IV for AGITATION ONLY

(Max 20mg/24 hours)

- **2nd LINE** – Quetiapine NG/PO BD

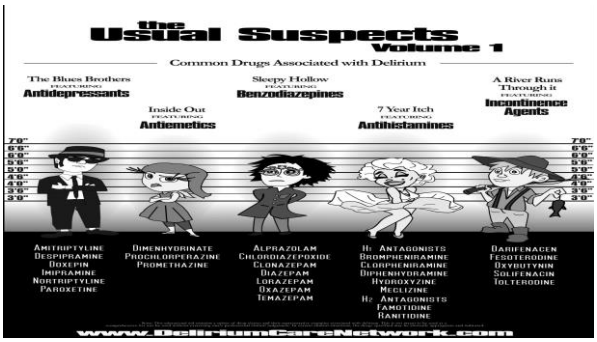
(↑ every 24 hours according to response)

- **3rd LINE** – Clonidine Infusion

or Propofol Infusion *(invasively ventilated only)*

- NO LORAZEPAM (100% delirium)
- Benzodiazepines- be cautious, LT cog risk, increased delirium risk
- Haloperidol and quetiapine have LT impacts- use for **only one week**

- **DO NOT MEDICATE hypoactive delirium**



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# You can't treat the Lt Psy Impacts

Myth 8

## Delirium, Deluded Memories and PTSD

- ITU delirium a risk factor for PTSD
- HOWEVER, fairly new area of research
  - Inconclusive findings to-date
    - Some research suggests sedation level is a risk factor for delirium and PTSD
    - BUT, delirium per se does not NECESSARILY affect the risk of PTSD
    - PTSD, anxiety or depression might be affected by the type of memories patients have (deluded memories)
    - Deluded memories tend to be associated with anxiety after discharge