

# An Exploration of the Usability of Two Delirium Screening Tools in Epworth Richmond ICU: A Pilot Study

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# Background

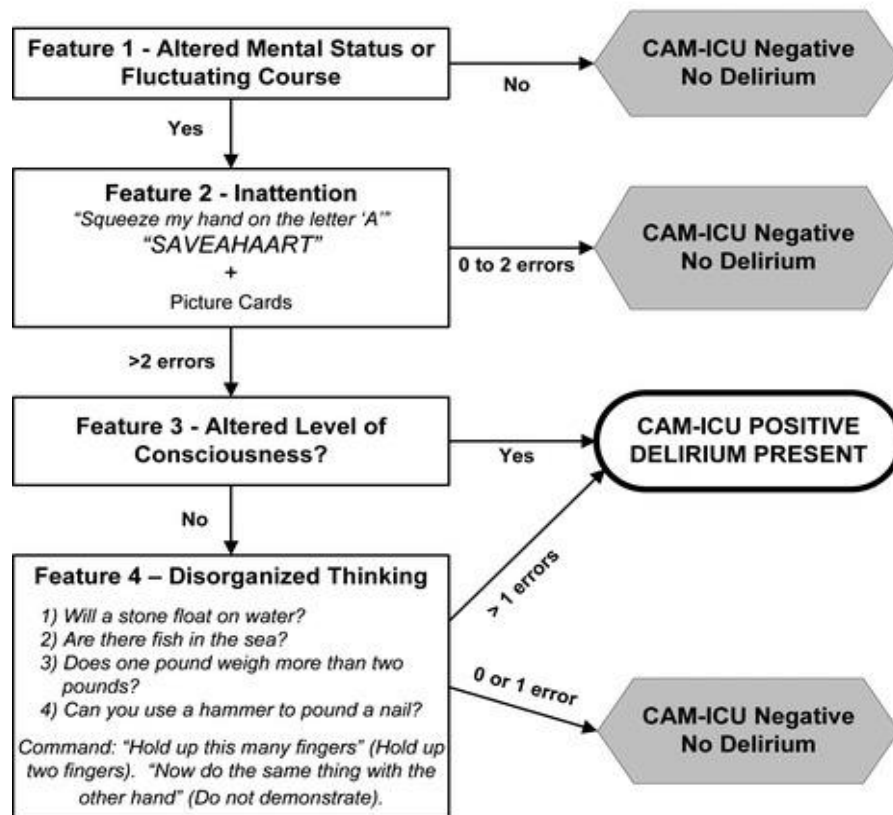
ICU specific delirium screening tools published in 2001<sup>1,2</sup>

ACSQHC introduced delirium as a Clinical Care Standard in 2016<sup>3</sup>

Epworth introduces 4AT<sup>4</sup> for delirium screening in all areas.

ASSESSMENT	SCORING INSTRUCTIONS	SCORE
1. Altered level of consciousness	<ul style="list-style-type: none"> <li>If RASS is -5 (no response) or -4 (response to noxious stimulus only), record "U/A" (unable to score) and do not complete remainder of screening tool.</li> <li>Score "0" if RASS is 0 (calm, cooperative, interacts with environment without prompting, normal wakefulness.</li> <li>Score "1" for any other RASS score</li> </ul>	
1. Inattention	<p>"1" for any of the following:</p> <ul style="list-style-type: none"> <li>Difficulty following conversation or instructions</li> <li>Easily distracted by external stimuli</li> <li>Difficulty in shifting focuses</li> </ul>	
1. Disorientation	"1" for any obvious mistake in person, place or time	
1. Hallucination/delusions/psychosis	<p>"1" for any one of the following:</p> <ul style="list-style-type: none"> <li>Unequivocal manifestation of hallucinations or of behaviour probably due to hallucinations (e.g: catching non-existent object)</li> <li>Delusions</li> <li>Gross impairment in reality testing</li> </ul>	
1. Psychomotor agitation or retardation	<p>"1" for any of the following:</p> <ul style="list-style-type: none"> <li>Hyperactivity requiring additional sedatives or restraints in order to control potential dangerousness (e.g. pulling out IV lines, hitting staff)</li> <li>Hypoactivity or clinically noticeable psychomotor slowing. Differs from depression by fluctuation in consciousness and inattention.</li> </ul>	
1. Inappropriate speech or mood	<p>"1" for any of the following (score 0 if unable to assess):</p> <ul style="list-style-type: none"> <li>Inappropriate, disorganized or incoherent speech.</li> <li>Inappropriate display of emotion related to events or situation.</li> </ul>	
1. Sleep wake/cycle disturbance	<p>"1" for any of the following:</p> <ul style="list-style-type: none"> <li>Sleeping less than 4 hours or waking frequently at night (do not consider wakefulness initiated by medical staff or loud environment).</li> <li>Sleeping during most of day</li> </ul>	
1. Symptom fluctuation	"1" for fluctuation of the manifestation of any item or symptom over 24 hours (e.g., from one shift to another).	
TOTAL SCORE (0-8/8):	A score > 4 suggests delirium. A score > 4 is not indicative of the severity of the delirium.	

## CAM-ICU



# Research Approach

- 1 Prospective patient assessment
- 2 Retrospective medical record audit
- 3 Focus group interviews

# Prospective patient assessment

- Aim:
  - assess and evaluate two delirium screening tools for use by bedside nurses in routine care
- Method:
  - 10 nurses educated to use the ICDSC (Intensive Care Delirium Screening Checklist) and CAM-ICU (Confusion Assessment Method for ICU)
  - screening tools used to assess patients during routine care

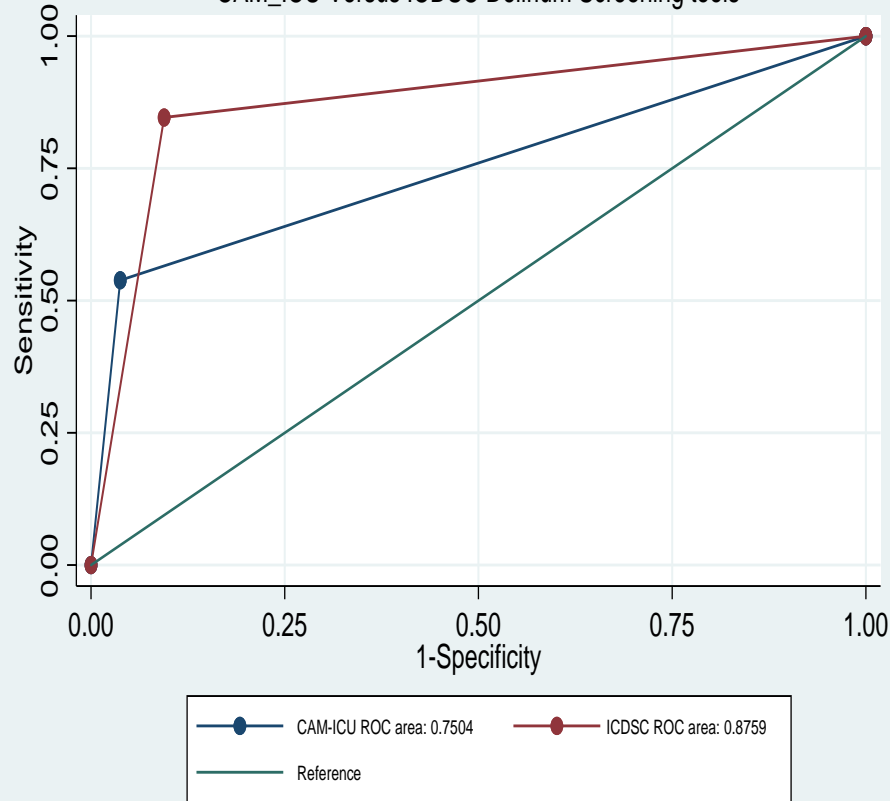
# Retrospective medical record audit

- Aim:
  - Compare the predictive accuracy of the two screening tools against a medical diagnosis of delirium
- Method:
  - Data collected on patients assessed
  - Screening results compared with medical ICU discharge summary

# Retrospective medical record audit: Results

N = 66	Medical discharge	CAM-ICU positive	ICDSC positive	Delirium
	summary			prevalence
	n (%)	n (%)	n (%)	n (%)
Indication of delirium				
during ICU admission	11 (16.7)	9 (13.6)	11 (16.7)	17 (25.7)

AREA under the Receiver Operating Characteristics Curve  
CAM\_ICU Versus ICDSC Delirium Screening tools



	CAM-ICU	ICDSC
Sensitivity (%)	53.8	84.6
Specificity (%)	96.2	90.6
ROC area	0.75	0.88



# Focus group interviews

- Aim:
  - To understand the differences between two delirium screening tools as perceived by ICU nurses
  - To understand ICU staff perceptions of delirium, prevention, screening and management
- Method:
  - 30 – 45 minutes, semi-structured

# Focus group interviews: Results

- 14 participants
- 4 focus groups
  - 1 focus group of the ICU leadership team
  - 3 focus groups of nurse assessors

# Divergent views

*“The diagnosis of delirium, it’s not really that important, it’s just the collection of symptoms that you’re describing, it’s more important to see what’s driving it.” (leadership group)*

*“...all these things that you pick up on really early will just be normal to pick up on, screening tool or not.” (leadership group)*

# Divergent views

*“I think to have the other tools to confirm your judgment and produce the evidence you know, ‘this is my assessment’.” (nurse assessor group)*

*“It’s an important way of highlighting the importance of delirium within an ICU setting. So, you’re drawing attention to a thing to address, so doing the prevention measures to stave away delirium is more of a norm there.” (nurse assessor group)*

# Mixed opinions for each tool

*“I found the CAM-ICU much quicker to complete.”* (nurse assessor group)

*“... I would have to go find this piece of paper, and then I’m reading it off basically, so I just found it really awkward and really odd to use.”* (nurse assessor group)

# Mixed opinions for each tool

*“I liked the other one [ICDSC] more because... you could delve a little bit deeper...”* (nurse assessor group)

*“...I was a bit unsure using it [the ICDSC] because ... some of the questions are related to the handover you receive from the previous nurse ...if this nurse ...did not pay much attention to the delirium state of the patient I just feel like I’m unsure of the data that I need to base on.”* (nurse assessor group)

# Conclusions

- Either screening tool is feasible
- Nurses find the tools useful
- Medical staff to be included in delirium screening implementation

# References

1. Ely, E. W., Gautam, S., Margolin, R., Francis, J., May, L., Speroff, T., . . . Inouye, S. K. (2001). The impact of delirium in the intensive care unit on hospital length of stay. *Intensive Care Medicine*, 27(12), 1892-1900. doi:10.1007/s00134-001-1132-2
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3. Australian Commission on Safety and Quality in Health Care, ACSQHC, . (2016). *Delirium Clinical Care Standard*. Retrieved from <https://www.safetyandquality.gov.au/our-work/clinical-care-standards/delirium-clinical-care-standard/>.
4. MacLulich, A. (2014). 4AT. Retrieved from <https://www.the4at.com/>



# Thank you

## Questions?



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