Cognitive Vital Signs to Identify Delirium in the Emergency Department

Elizabeth Dang/Sangil Lee, MD, MS
Department of Emergency Medicine
University of Iowa Carver College of Medicine

Disclosure

- I, Sangil Lee, am Supported by a Health Resources and Services Administration Geriatric Workforce Enhancement Program Award, U1QHP28731.

Learning Objectives

- 1. Understand the definition of delirium
- 2. List evaluation tools for delirium in the acute care setting
- 3. Familiarize with Delirium Triage Screen and the application of DTS in the ED.

Delirium - case scenario

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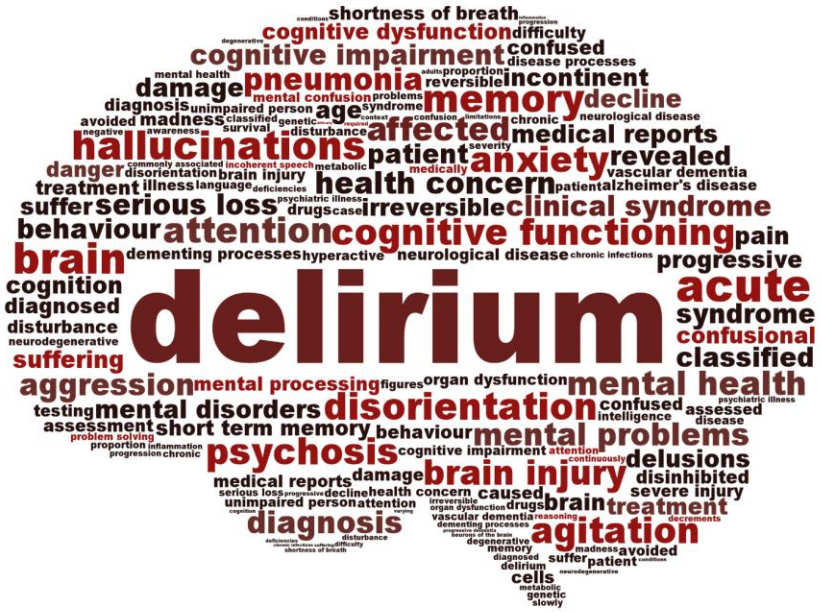
You are taking care of a 78-year-old female who fell and presented to the ED with left sided hip pain. Her LE has severe pain with ROM and is externally rotated. Patient is trying to pull IV and not answering any of your questions. Her caregiver states she is usually conversant.

What is delirium?



- Delirium is a global brain dysfunction that is common, serious and fatal.
- The incidence of delirium is 8-16% in the ED, 20-40% in the inpatient unit.
- 80% of delirium cases are missed by clinical gestalt alone.

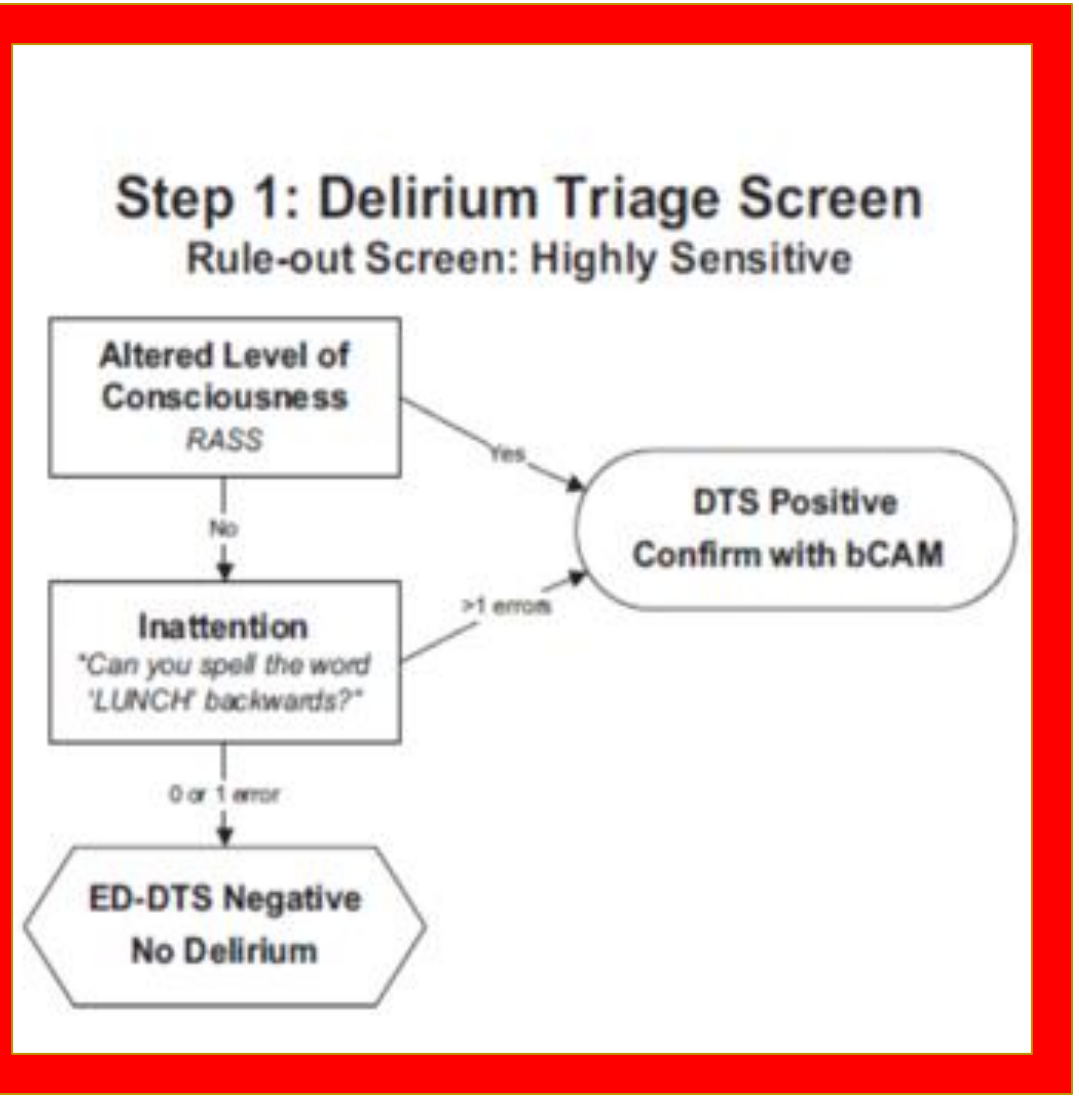
Routine delirium screening will lead to:

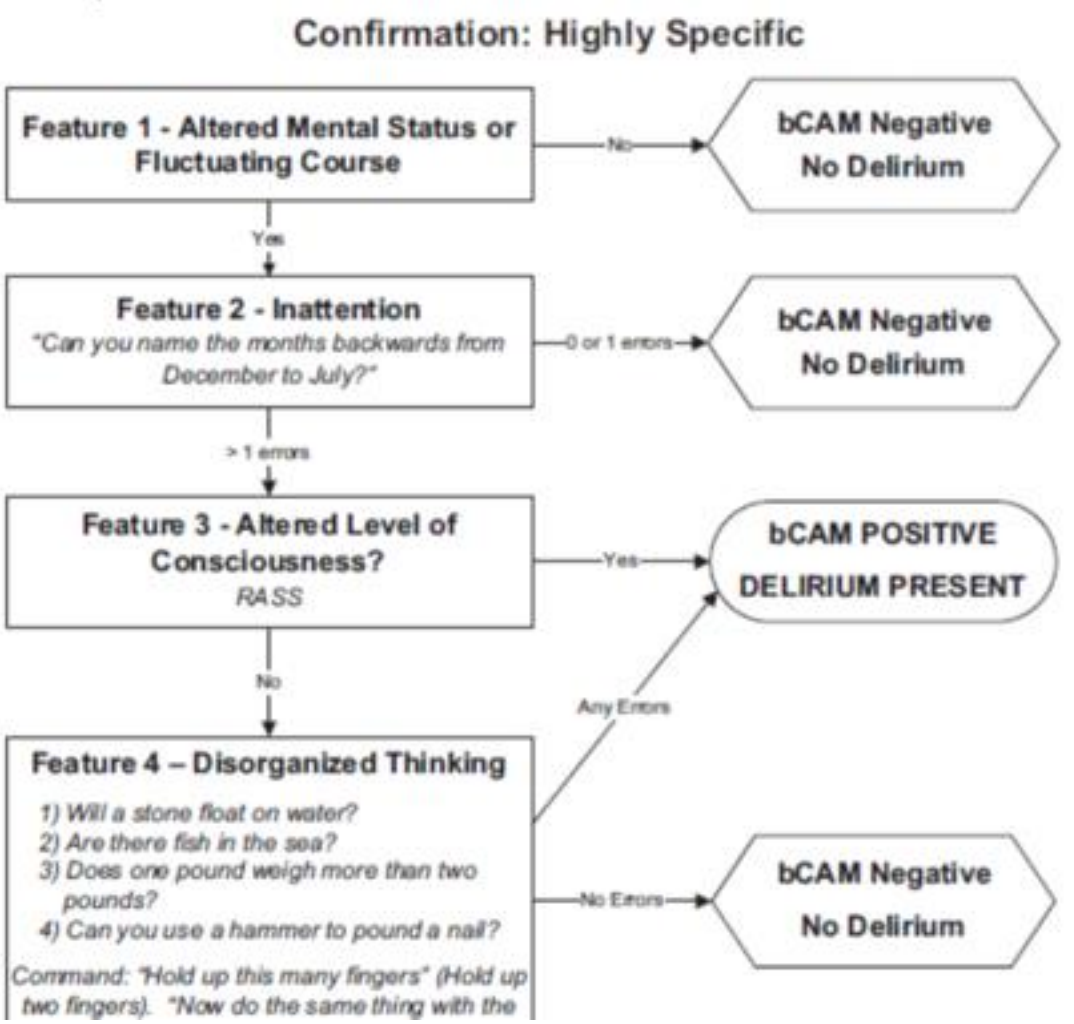
1. Accurate diagnosis
2. Early identification of high risk population (agitation, fall, 1 to 1 care, code green), and
3. Increased reimbursement.

Lewis et al. Unrecognized delirium in ED geriatric patients. *Am J Emerg Med*. 1995;13(2):142-145.

What is the best way to screen for delirium?

Delirium Screening Tools





Han JH, Wilson A, Vasilevskis EE, et al. Diagnosing delirium in older emergency department patients: validity and reliability of the delirium triage screen and the brief confusion assessment method. *Ann Emerg Med*. 2013;62:457-65.

Delirium Screening Tools - RASS: Richmond Agitation-Sedation Scale

Spectrum of Acute Brain Dysfunction

RASS	-5	-4	-3	-2	-1	0	+1	+2	+3	+4
	Unarousable: No response to voice or physical stimulation	**Deep sedation:** No response to voice, but responds to physical stimulation	**Moderate Sedation:** Responds to voice, but does not make eye contact	**Light Sedation**: Responds to voice, but can only make eye contact for < 10 seconds	**Drowsy:** Responds to voice and can make eye contact for > 10 seconds	**Alert and calm**	**Restless:** Anxious, but movements not agressive	**Agitated:** Frequent, non-purposeful movement	**Very Agitated:** Pulls or removes tubes or catheters, agressive	**Combative:** Overtly combative, violent, danger to staff

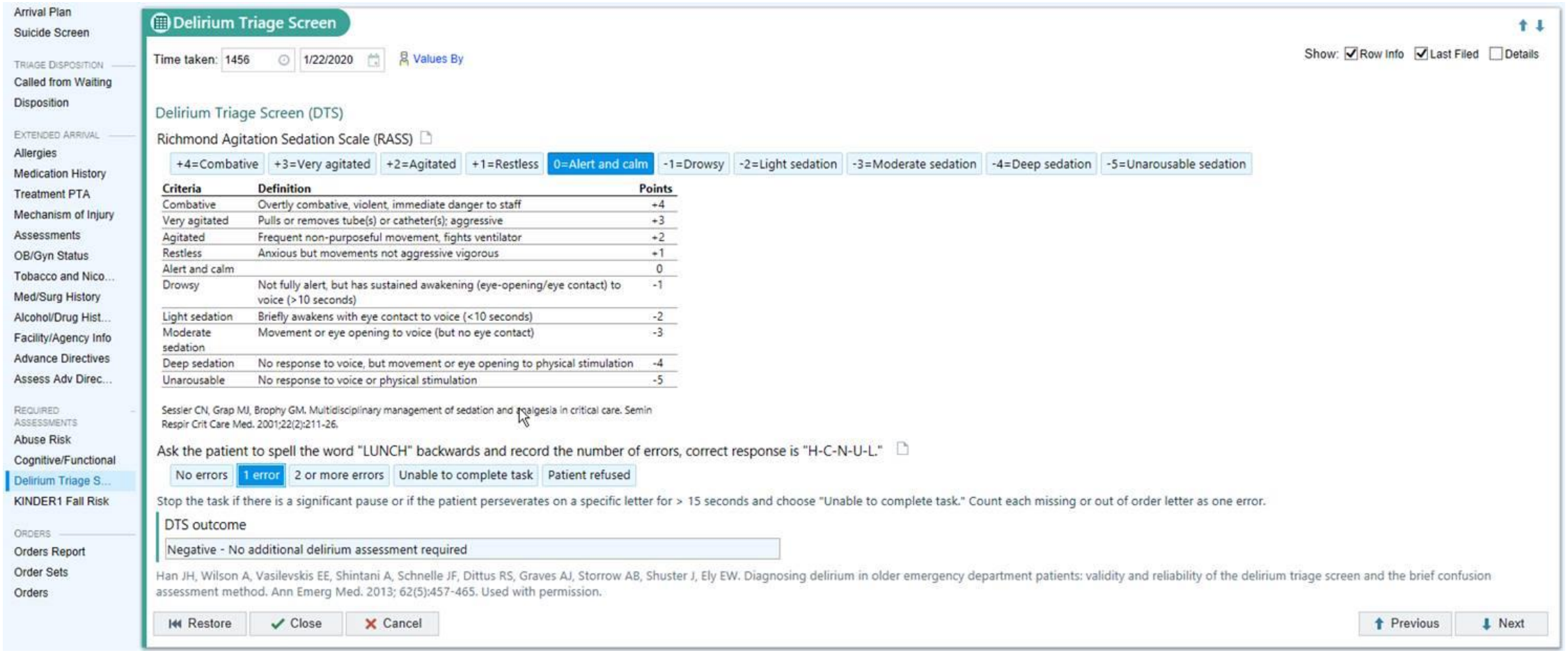
Delirium Screening Tools - Testing Inattention

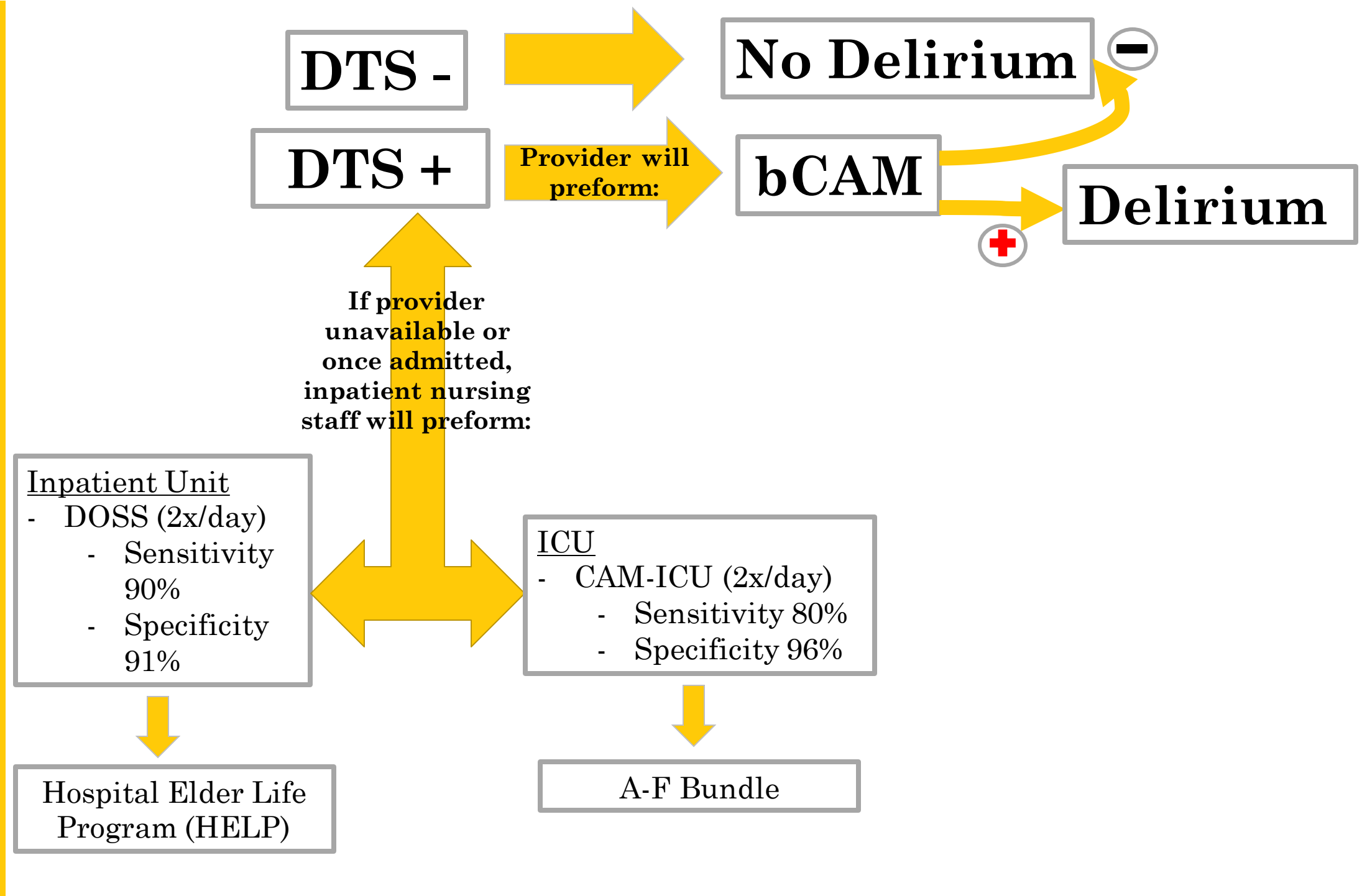
- Ask patient to spell “LUNCH” backwards
- 0 or 1 error = Negative DTS
- > 1 = Positive DTS

Delirium Screening Tools – DTS Negative

- Patient does not appear to have altered consciousness (0 on RASS) AND does not display inattention = Negative DTS
  - 98% Sensitivity
  - 55% Specificity

Delirium Screening Tools – EPIC




DTS -
No Delirium
DTS +
Provider will preform:
bCAM
Delirium
If provider unavailable or once admitted, inpatient nursing staff will preform:
Inpatient Unit
- DOSS (2x/day)
- Sensitivity 90%
- Specificity 91%
ICU
- CAM-ICU (2x/day)
- Sensitivity 80%
- Specificity 96%
Hospital Elder Life Program (HELP)
A-F Bundle

Delirium Screening Tools – What if the patient screens positive for delirium?

- "Tolerate, Anticipate, Don't Agitate" (TADA)
  - *Tolerate* patient's behavior
    - Allow patient to feel sense of control
    - May indicate an underlying issue the patient cannot adequately communicate
  - *Anticipate* what the patient might do
    - Avoid factors that may cause or exacerbate agitation
  - *Don't Agitate*
    - Try to reduce distress by avoiding possible agitators such as reorientation, tethers not needed for critical care (nasal cannula oxygen, multiple monitoring devices, etc.), physical restraints

FAQ

- Q: Is the DTS valid in patients who are illiterate?
  - Answer: Yes. Patients with lower educational attainment are at increased risk for delirium.

- Q: Do I have to do the ”LUNCH” backwards task if the patient has an altered level of consciousness?
  - Answer: No, a patient who has an altered level of consciousness is already DTS positive.

- Q: How should I rate the DTS if the patient refuses to spell the word “LUNCH” backwards or can’t perform this task at all?
  - Answer: The patient is considered DTS positive.

FAQ

- Q: What if the patient switches two letters during the spelling test? (ex: H-C-U-N-L)
  - Answer: The patient made 2 errors and is DTS positive.

- Q: What if the patient takes a long pause or perseverates on a letter during the spelling test?
  - Answer: If the patient pauses or perseverates for > 15 seconds, the DTS is considered positive.

Delirium Screening Tools – here is how you do it!

- Link: http://eddelirium.org/delirium-assessment/dts/

Summary

- Delirium is a serious medical condition among older adults.
- DTS is a two-step approach to screen older adults for delirium.
- Positive DTS will be updated to provider who will perform bCAM.