DELIRIUM

Delirium occurs in 60-80% ventilated ICU patients, 40-60% nonventilated pateints

90% of patients are hypoactive, 10% have hyperactive delirium

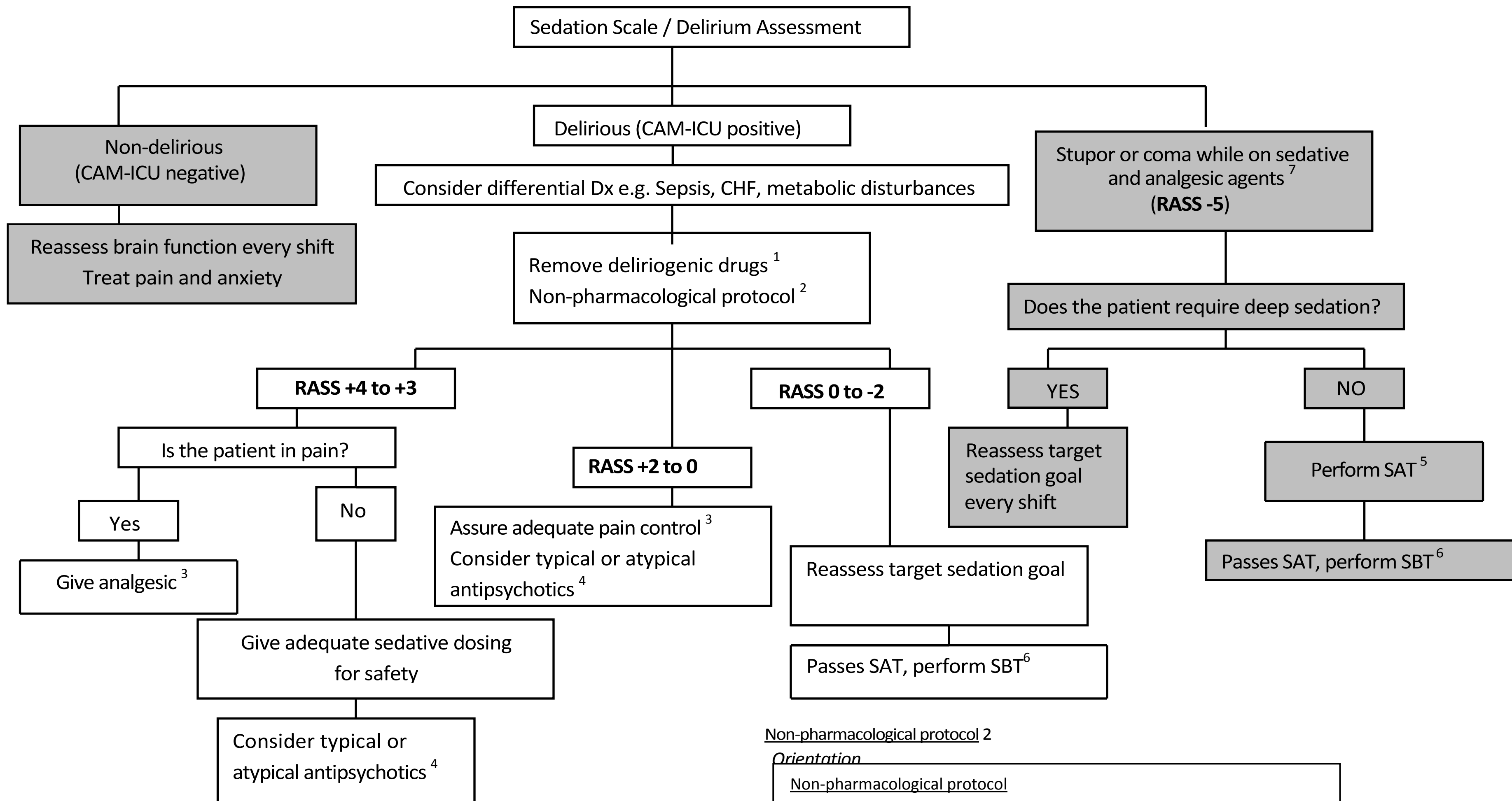
First line therapy is Haldol. An alternative is Quetiapine (Seroquel). Benzodiazepines should be avoided in patients with delirium. There is no evidence that these medications prevent ICU delirium. Haloperidol does not reduce the duration of delirium; Atypical antipsychotics may reduce the duration of delirium in adult ICU patients

Richmond Agitation Sedation Scale (RASS) *

Score	Term	Description
+4	Combative	Overtly combative, violent, immediate danger to staff
+3	Very agitated	Pulls or removes tube(s) or catheter(s); aggressive
+2	Agitated	Frequent non-purposeful movement, fights ventilator
+1	Restless	Anxious but movements not aggressive vigorous
0	Alert and calm	
-1	Drowsy	Not fully alert, but has sustained awakening (eye-opening/eye contact) to *voice* **(>10sec)**
-2	Light sedation	Briefly awakens with eye contact to *voice* **(<10 seconds)**
-3	Moderate sedation	Movement or eye opening to *voice* **(but no eye contact)**
-4	Deep sedation	No response to voice, but movement or eye opening to *physical* stimulation
-5	Unarousable	No response to *voice or physical* stimulation

	Dosage forms	Peak	T1/2	Metabolism	Dosing
Haloperidol (Haldol)	IV, Oral	1 hr	10-36 hours	Hepatic, active metabolite	2.5-10 mg q 2 hrs
Risperidone (Risperdal)	Tablet, Solution	1 hr	20-30 hrs	Hepatic, active metabolite	1 mg po q12h, increase 0.5-1 mg every 2-3 days, Max 6mg, renal and hepatic adjustment
Quetiapine (Seroquel)	Tablet, SR tab	1.5 hr	6 hours	Hepatic, active metabolite	25 mg PO Q12 hr Titrated in increments of 25 mg/day every 24 hours Max daily dose 800 mg

UCH Critical Care: DELIRIUM PROTOCOL



1 Consider stopping or substituting decreasing dosages for deliriogenic medications such as benzodiazepines, anticholinergic medications (metochlorpromide, H2 blockers, promethazine, diphenhydramine, steroids. *Primarily a concern with renal dysfunction & elderly*

2See non pharmacological protocol – at right

3.**Analgesia** – Adequate pain control may decrease delirium. Assess w/ objective tool: CPOT or Nursing Assessment Hierarchy (Behavioral) OR Self Report: 0-10, mild/mod/severe, Faces.

4. Typical or atypical antipsychotics- While tapering or discontinuing sedatives, consider haloperidol 2.5-5 mg IVP Q 4 hours. May also consider using any of the atypicals (e.g. olanzapine, quetiapine, risperidone). Re-assess with CAM-ICU every 12 hours.

D/C w/ high fever, QTc prolongation, or drug-induced ririgidity.

5. Spontaneous Awakening Trial (SAT) – Stop/hold sedative bolus and/or infusions (notably benzodiazepines) to awaken patient. tolerated.

6. Spontaneous Breathing Trial (SBT) – CPAP trial if on ≤50% and ≤ 8 PEEP and Sats 90%

7. Sedatives and analgesics in ICU commonly include benzodiazepines, propofol, dexmedetomidine, fentanyl, or morphine.

Non-pharmacological protocol 2

Orientation

Non-pharmacological protocol

Orientation – provide visual and hearing aids-Encourage communication and reorientation-have familiar objects from home in room-Attempt consistency in nurse staff-Allow TV during day with daily news-nonverbal music

Environment-Sleep hygiene-sleep aids-control noise-ambulate during day-limit stimulation by visitors at night

Clinical parameters-SBP > 90-SaO2>90-treat metabolic derangement and infection.

ne) Control

Clinical parameters

Maintain systolic blood pressure > 90 mm Hg

Maintain oxygen saturations >90%

Treat underlying metabolic derangements and infections

UC Central:

Updated 7/2013

www.ICUdelirium.org

CAM-ICU Worksheet

Feature 1: Acute Onset or Fluctuating Course	Score	Check here if Present
Is the pt different than his/her baseline mental status? OR Has the patient had any fluctuation in mental status in the past 24 hours as evidenced by fluctuation on a sedation scale (i.e., RASS), GCS, or previous delirium assessment?	Either question Yes →	☐
Feature 2: Inattention		
<u>Letters Attention Test</u> (See training manual for alternate **Pictures**) <u>Directions</u>: Say to the patient, *"I am going to read you a series of 10 letters. Whenever you hear the letter 'A,' indicate by squeezing my hand."* Read letters from the following letter list in a normal tone 3 seconds apart. **S A V E A H A A R T** **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		
<u>Yes/No Questions</u> (See training manual for alternate set of questions) 1. Will a stone float on water? 2. Are there fish in the sea? 3. Does one pound weigh more than two pounds? 4. Can you use a hammer to pound a nail? **Errors are counted when the patient incorrectly answers a question.** <u>Command</u> 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 pt is unable to move both arms, for 2nd part of command ask patient to "Add one more finger" **An error is counted if patient is unable to complete the entire command.**	Combined number of errors >1→	☐

Overall CAM-ICU **Feature 1 <u>plus</u> 2 <u>and</u> either 3 <u>or</u> 4 present = CAM-ICU positive**	**Criteria Met →** **Criteria Not Met →**	☐ **CAM-ICU Positive** (Delirium Present) ☐ **CAM-ICU Negative** (No Delirium)

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