Minnesota Hospital Association

Ohio Hospital Association
The Quality Institute

Ohio/Minnesota Collaborative

Place picture here

Delirium Prevention
Virtual Learning Session
February 24, 2016

Delirium collaboration Ohio and Minnesota HENs

- In December 2015, the Minnesota and Ohio HENS began an intentional and active partnership to address delirium.
- We hope that this collaboration will be highly beneficial in the identification, development and dissemination of delirium tools and resources, as well has provide a greater learning opportunity for both states.

Delirium collaboration
Ohio and Minnesota HENs

Date All times 11:00-12:00 CT/12:00-1:00 ET		Topic
February 24	VLS Webinar	Awareness and assessment
March 23	Networking call	Awareness and assessment
April 27	VLS Webinar	Medications/Management and prevention
May 25	Networking call	Medications/Management and prevention
June 22	VLS Webinar	Care interventions/Patient and family engagement
July 27	Networking call	Care interventions/Patient and family engagement
August 24	VLS Webinar	Barriers, successes and sustainability
September 21	Networking call	Barriers, successes and sustainability

Virtual Learning Sessions:
These webinars are intended to provide didactic instruction and/or step by step direction to hospitals as they work to decrease the incidence of delirium. Webinars will highlight real world examples and champions from the field.

Networking phone calls:
Topics will follow the previous months VLS, as well as determined by need and requests and are meant an interactive hour to support hospitals as they work to decrease the incidence of delirium. Hospitals with success on the topic will be invited to share briefly. Participants will have an opportunity to take a deeper dive into the topics presented in the Delirium Virtual Learning Sessions (VLS) and to ask questions, share challenges and connect with hospitals that may have found solutions and success.

Continuing Education information

- Today's program has been approved for 1.0 hour of continuing education.
- Requirements for receipt of a continuing education certificate are as follows:
  - Signature must be on sign-in sheet (Pharmacist record license number on sign-in sheet)
  - Must attend a minimum of 80% of the program
  - Complete evaluation

The Ohio Hospital Association Research and Educational Foundation (OLN-0017-P) is approved as a provider unit of continuing education by the Ohio Board of Nursing through the approver unit at the Ohio League for Nursing (OBN-006-92) and provider unit status is valid through June, 2017.

CE Forms to complete and fax

PARTICIPANT SIGN-IN SHEET Program Title: *Iatrogenic Delirium: Assessment and Awareness* **February 24, 2016**

Please fax this form AND all evaluations to 614-917-2254, or to sherric@ohanet.org. No other versions of sign-in sheets will be accepted.

HOSPITAL:_____ CONTACT PERSON:_____

ADDRESS:_____ TITLE:_____

CITY:_____ STATE:_____ ZIP CODE:_____ EMAIL:_____

TELEPHONE:_____ FAX:_____ (Please Print)

IF NAME IS NOT PRINTED A CERTIFICATE WILL NOT BE ISSUED

NAME (PLEASE PRINT)		TITLE	LICENSE NUMBER * Pharmacists Only *	SIGNATURE
1.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs. ☐ Emerg. Dept ☐ Nursing Mgrs. ☐ Safety/Sec. Personnel ☐ Other		
2.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs. ☐ Emerg. Dept ☐ Nursing Mgrs. ☐ Safety/Sec. Personnel ☐ Other		
3.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs. ☐ Emerg. Dept ☐ Nursing Mgrs. ☐ Safety/Sec. Personnel ☐ Other		
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5.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs. ☐ Emerg. Dept ☐ Nursing Mgrs. ☐ Safety/Sec. Personnel ☐ Other		
6.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs. ☐ Emerg. Dept ☐ Nursing Mgrs. ☐ Safety/Sec. Personnel ☐ Other		
7.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs. ☐ Emerg. Dept ☐ Nursing Mgrs. ☐ Safety/Sec. Personnel ☐ Other		
8.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs. ☐ Emerg. Dept ☐ Nursing Mgrs. ☐ Safety/Sec. Personnel ☐ Other		
9.		☐ Comp. Off. ☐ Atty. ☐ Risk Mgs.		

Ohio Hospital Association

IATROGENIC DELIRIUM EVALUATION

February 24, 2016
OLN-0017-P

Please complete this questionnaire and fax to 614-917-2254. Thank you.

Attending 80% of the program and turning in completed evaluation forms is required to receive CE certificate

The speaker(s) for today's program have indicated no conflict of interest related to this presentation.

I was able to achieve the following outcomes:

1. Define the presence of iatrogenic delirium in the critical care patient.
   YES NO
2. Describe the presence of iatrogenic delirium in the medical-surgical patient.
   YES NO

DID THE SPEAKER(S)

Denise Kresevic, PhD, RN, CNS

Utilize effective teaching strategies	YES	NO
Present material in clear & non-biased manner	YES	NO

Susan Schumacher, MS, APRN, G-CNS

Utilize effective teaching strategies	YES	NO
Present material in clear & non-biased manner	YES	NO

Delirium Assessment

February 24, 2016

Susan Schumacher, MS, APRN-BC

Objectives

- Define delirium
- Differentiate delirium from dementia
- Identify predisposing and precipitating factors leading to delirium.
- Describe several delirium assessment tools utilized in the medical/surgical areas.

What is Delirium ?

A medical illness of acute or sub-acute onset that presents with psychiatric symptoms, including:

- Disturbance in attention
- Change in cognition (e.g. perception, thought, and memory) and/or
- Perceptual impairments (illusions, hallucinations, or delusions)

Distressing for patients, families and healthcare workers…

Delirium– It's Preventable and Difficult to Resolve

- Occurs in 5-61% of orthopedic patients, especially those with hip fractures
- Up to two-thirds of patients with delirium have dementia
- Costs $164 billion annually
- Only 4% of patients have completely resolved delirium at discharge

Outcomes of Delirium

- Increased length of stay
- Increased morbidity and mortality
- Increased risk of adverse events: falls, aspiration pneumonia, pressure ulcers
- Inability to return to same level of care at discharge
- Long term cognitive impairment/PTSD

Differentiating Delirium and Dementia

Delirium	Dementia
Acute or abrupt onset	Insidious, slower changes over time
Inattention	No changes
Changes in the level of consciousness (lethargy to vigilant)	No changes until late in illness
Fluctuating course, tends to be worse at night	Steady decline
Sleep/wake cycle impaired- may be reversed	Fragmented; may awaken frequently
Visual and auditory hallucinations	Visual hallucinations with Lewy body dementia
Psychomotor behavior- hyperactive, hypoactive or mixed	No change

Predisposing Factors for Delirium

- Dementia/ Cognitive impairment(present or past)
- Substance abuse
- Visual/ hearing impairment
- Parkinson's disease
- Hip fracture
- Age 65 years or older
- Traumatic brain injury
- Chronic kidney disease
- Severe illness

Precipitating Factors for Delirium

- Hypoxia
- Infections
- Electrolyte imbalances
- Anemia
- Medications
- Pain
- Tethers (catheters, O2, NG, lines, etc.)

Top 10 Medications that are Linked to Delirium

- Benzodiazepines (Ativan)
- Antihistamines (Benadryl)
- Narcotics (Morphine)
- Sedatives (Ambien, Restoril)
- Tricyclic's
- Hydroxyzine (Vistaril)
- Lithium
- Meclizine
- Parkinson's medications
- Bladder drugs

Minnesota Hospital Association – Best Evidence

Mnemonic for Delirium

- D--Drugs
- E—Eyes, Ears
- L—Low sats, states (heart attack, stroke)
- I-- Infection
- R-- Retention
- I– Ictal state
- U– Underhydration/nutrition
- M– Metabolic causes
- S– Subdural hematoma
    - St. Louis University Geriatrics Evaluation Mneumonics Screening Tools

T.H.I.N.K. Mnemonic

Determining a Delirium Assessment Tool

- Evidence-based tool (validity, sensitivity, specificity)
- Ease of use for nursing staff
  - Length of tool
  - Amount of time to complete
  - Intuitive
- Electronic medical record may drive tool access
- Involve staff with decision on tool

Delirium Assessment Tools

- Confusion Assessment Method (CAM)
- NEECHAM acute confusion scale
- NU-DESC
- Delirium Observation Screening

Confusion Assessment Method (CAM)

- Acute and fluctuating course
- Inattention
- Disorganized Thinking
- Change in level of consciousness

NEECHAM Acute Confusion Scale (Severity Score)

- Information Processing (Cognitive)
  - Attention and alertness
  - Orientation
  - Complex command
- Processing (Behavioral)
  - Posture/Appearance
  - Psychomotor behavior
  - Verbal (initiation/content of speech)
- Vital Signs
  - Foley catheter usage, vital signs

NU-DESC (Screening Tool)

- Disorientation (verbal or behavioral)
- Inappropriate behavior
- Inappropriate communication
- Illusions/Hallucinations
- Psychomotor retardation

Delirium Observation Screening Tool

- Dozes during conversation or activity
- Is easily distracted
- Maintains attention to conversation or action
- Does not finish question or answer
- Gives answers which do not fit the question
- Reacts slowly to instructions
- Thinks to be somewhere else
- Knows which part of the day it is
- Remembers recent event
- Is picking, disorderly, restless
- Pulls IV tubing, feeding tubes, etc.
- Is easy or suddenly emotional
- See persons, things as somebody/something else

Delirium Prevention is Key!!

References

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- Gaudreau, J. Gagnon,P. et. Al. (2005). Fast, systematic, and continuous delirium assessment in hospitalized patients: The nursing delirium screening scale. 29(4), 368-375.
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- McCusker, J., Cole, M., et. al. (2002). Delirium predicts 12 month mortality. Archives of Internal Medicine. 162(4), 457-463.
- Robertson, B. and Robertson, T. (2006). Current concepts review Postoperative delirium after hip fracture. The Journal of Bone and Joint Surgery. September 88-A (9). 2060-2068.

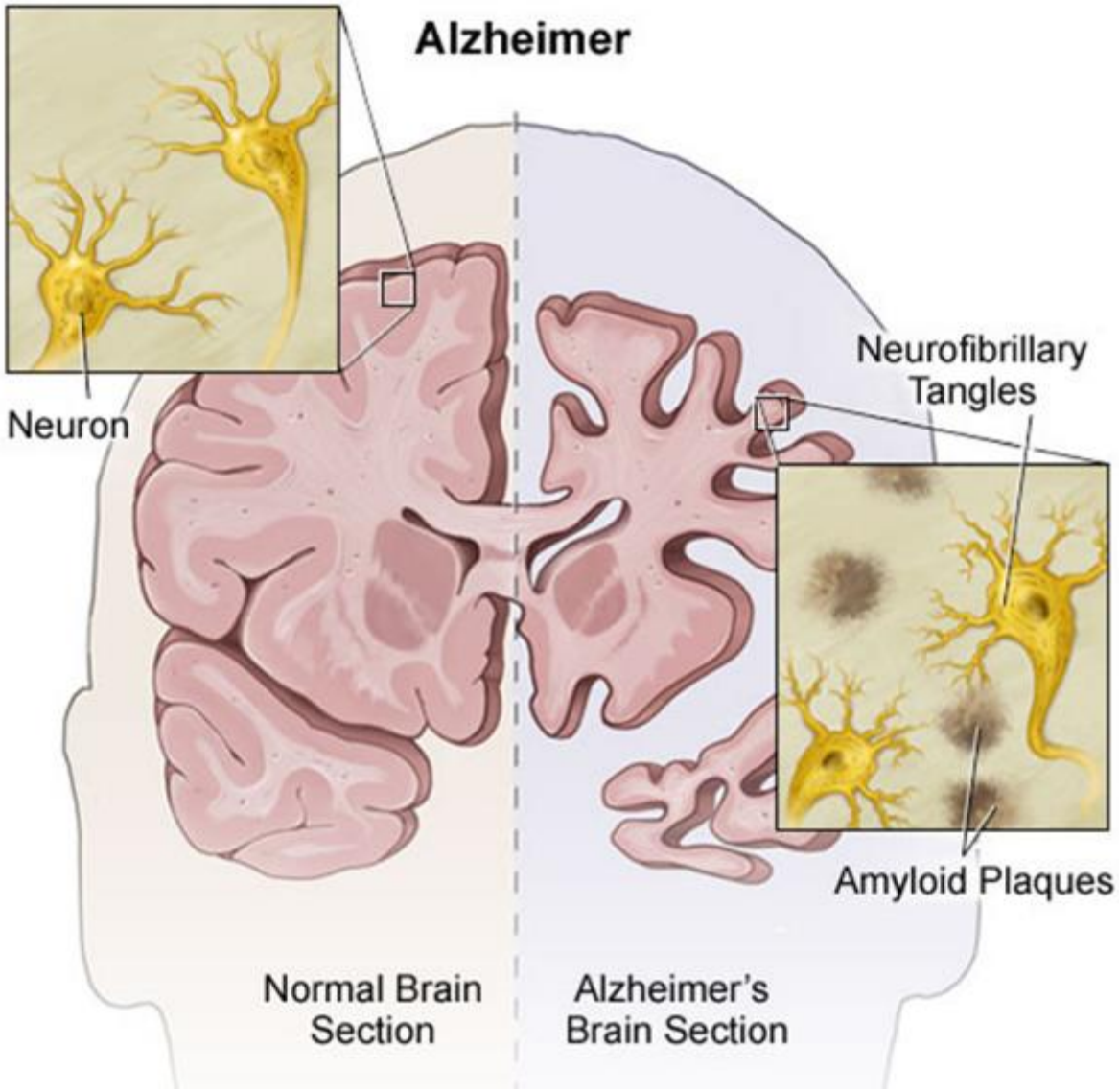
ICU Delirium: We can make a difference !

Denise Kresevic RN Ph.D APN

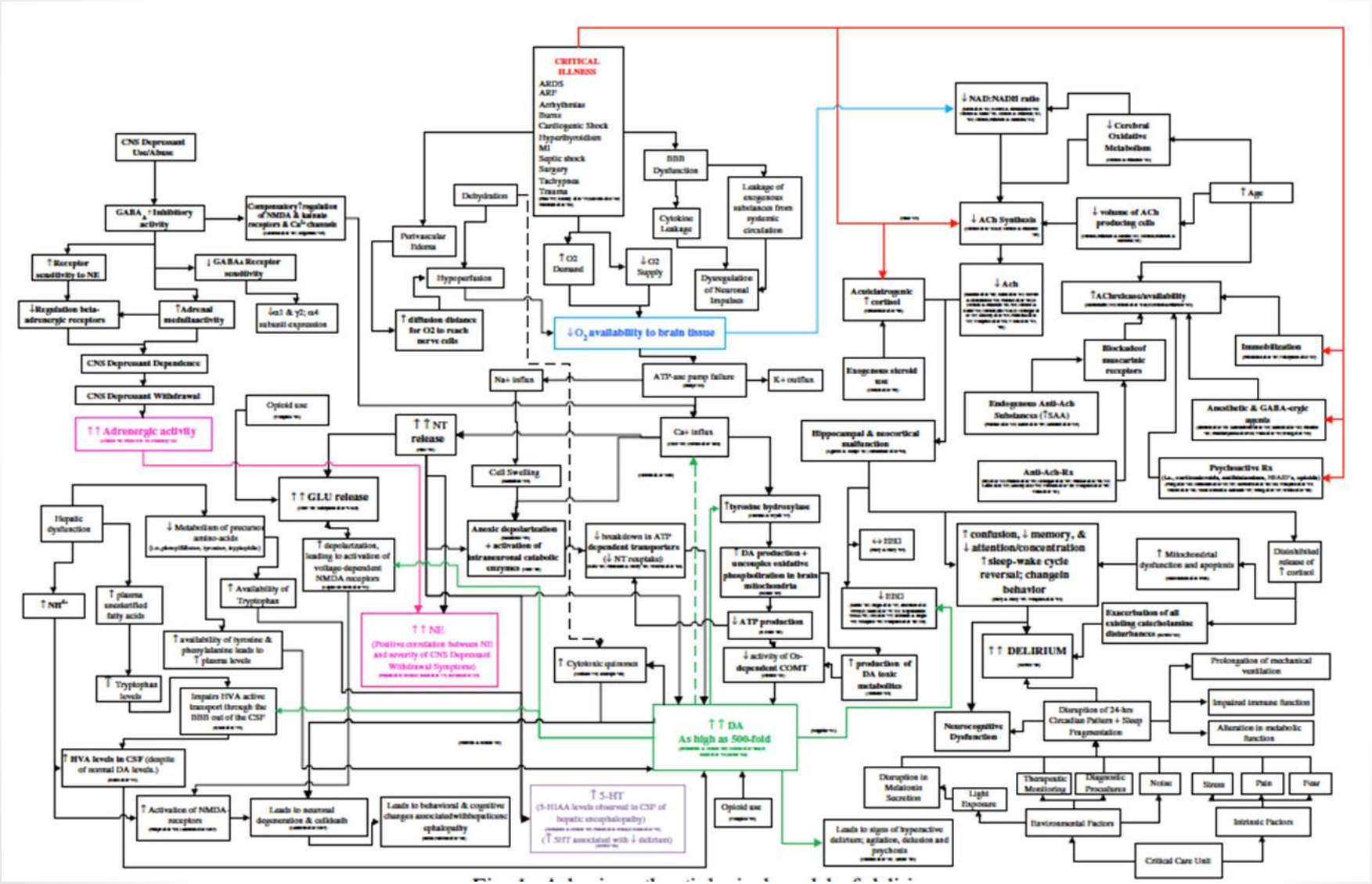
February 2016

Disclosure

- Dr Kresevic has no actual or potential conflict of interest in relation to this presentation
- Any views or opinions presented are solely those of Dr Kresevic and do not necessarily represent those of the Veterans Administration or University Hospitals
- Acknowledge Dr. Wes Ely resources


Alzheimer
Neuron
Neurofibrillary Tangles
Amyloid Plaques
Normal Brain Section
Alzheimer's Brain Section

Proposed Pathophysiology



Maldonado, Crit Care Clinic 2008; 24:789-856

Delirium (Pathophysiology)

Proposed Theories

- Neurotransmitters (dopamine; gamma-aminobutyric acid; acetylcholine)
- Alteration in synthesis, release, inactivation resulting in excess dopamine, acetylcholine depletion
- Additional Neurotransmitter imbalances: serotonin imbalance, endorphin hyperfunction, increased noradrenergic activity

So What's the big deal

- Delirium is not normal-brain failure
- Not harmless 1/3 never return to baseline
- Meds negatively associated with outcomes

Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit

Juliana Barr, MD, FCCM[1]; Gilles L. Fraser, PharmD, FCCM[2]; Kathleen Puntillo, RN, PhD, FAAN, FCCM[3]; E. Wesley Ely, MD, MPH, FACP, FCCM[4]; Céline Gélinas, RN, PhD[5]; Joseph F. Dasta, MSc, FCCM, FCCP[6]; Judy E. Davidson, DNP, RN[7]; John W. Devlin, PharmD, FCCM, FCCP[8]; John P. Kress, MD[9]; Aaron M. Joffe, DO[10]; Douglas B. Coursin, MD[11]; Daniel L. Herr, MD, MS, FCCM[12]; Avery Tung, MD[13]; Bryce R. H. Robinson, MD, FACS[14]; Dorrie K. Fontaine, PhD, RN, FAAN[15]; Michael A. Ramsay, MD[16]; Richard R. Riker, MD, FCCM[17]; Curtis N. Sessler, MD, FCCP, FCCM[18]; Brenda Pun, MSN, RN, ACNP[19]; Yoanna Skrobik, MD, FRCP[20]; Roman Jaeschke, MD[21]

Nursing assessment is Key

- RASS
- CAM each shift (don’t miss hypoactive)
- Pain assessment
- Find the causes and treat delirium
- Prevent permanent cognitive impairment
- Prevent deaths

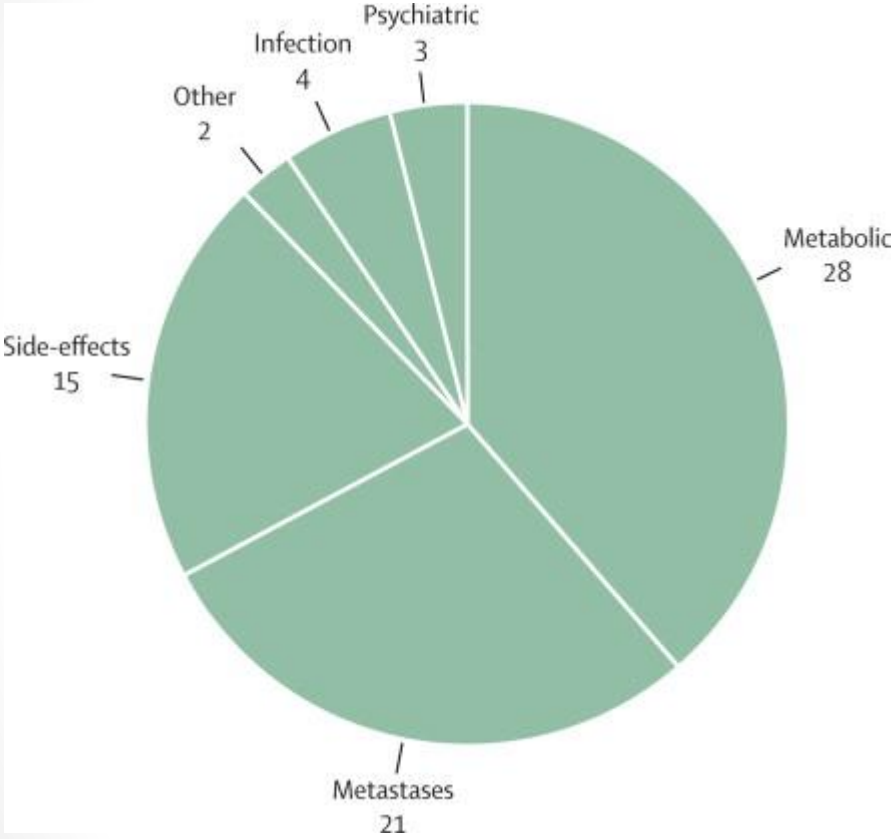
Benzodiazepines

"The irony is that these are the same medications physicians often use to manage agitated or delirious patients. This practice, even if immediately effective in tranquilizing a patient may, in the long run, aggravate and perpetuate the syndrome of delirium."

Maldonado. Crit Care Clin 24 (2008):657-722

	Depression	Delirium*	Dementia
General population	Minor depressive symptoms 3-26%		5% of 65+ adults 50% of 85+ adults
Hospitalized patients	Minor depressive symptoms 23%	10-15% on admission 10-40% in-hospital (new onset) 43-61% of hip surgery patients 31% of older adults admitted to medical intensive care units 83% of mechanically ventilated patients (all ages)	25%
	Depression + dementia 22-54%	Delirium + dementia 22-89%	

Causes of Delirium



- Opioid toxicity can cause delirium but in hip-surgery patients delirium is nine times more frequent if their post-operative pain is undertreated (Morrison *et al*, 2003).
- Sleep deprivation
- Electrolyte imbalance
- Use of physical restraints
- Visual or hearing deficits
- History of stroke, HF, epilepsy, renal failure, liver disease, HIV, dementia

Delirium Risk Factors

Predisposing

- Age 75 & older
- Co-morbid conditions
- ETOH history
- Orthopedic surgery
- >5 medications
- History of dementia
- Functional impairments
- Sensory deficits—hearing, vision loss
- Inactivity

Delirium: other names…

- Metabolic encephalopathy
- Acute organic brain syndrome
- Acute confusional state
- ICU psychosis: treated as normal occurrence in ICU
- Psychosis
- Sundowning
- Cerebral insufficiency
- Post-partum psychosis

Delirium: DSM5

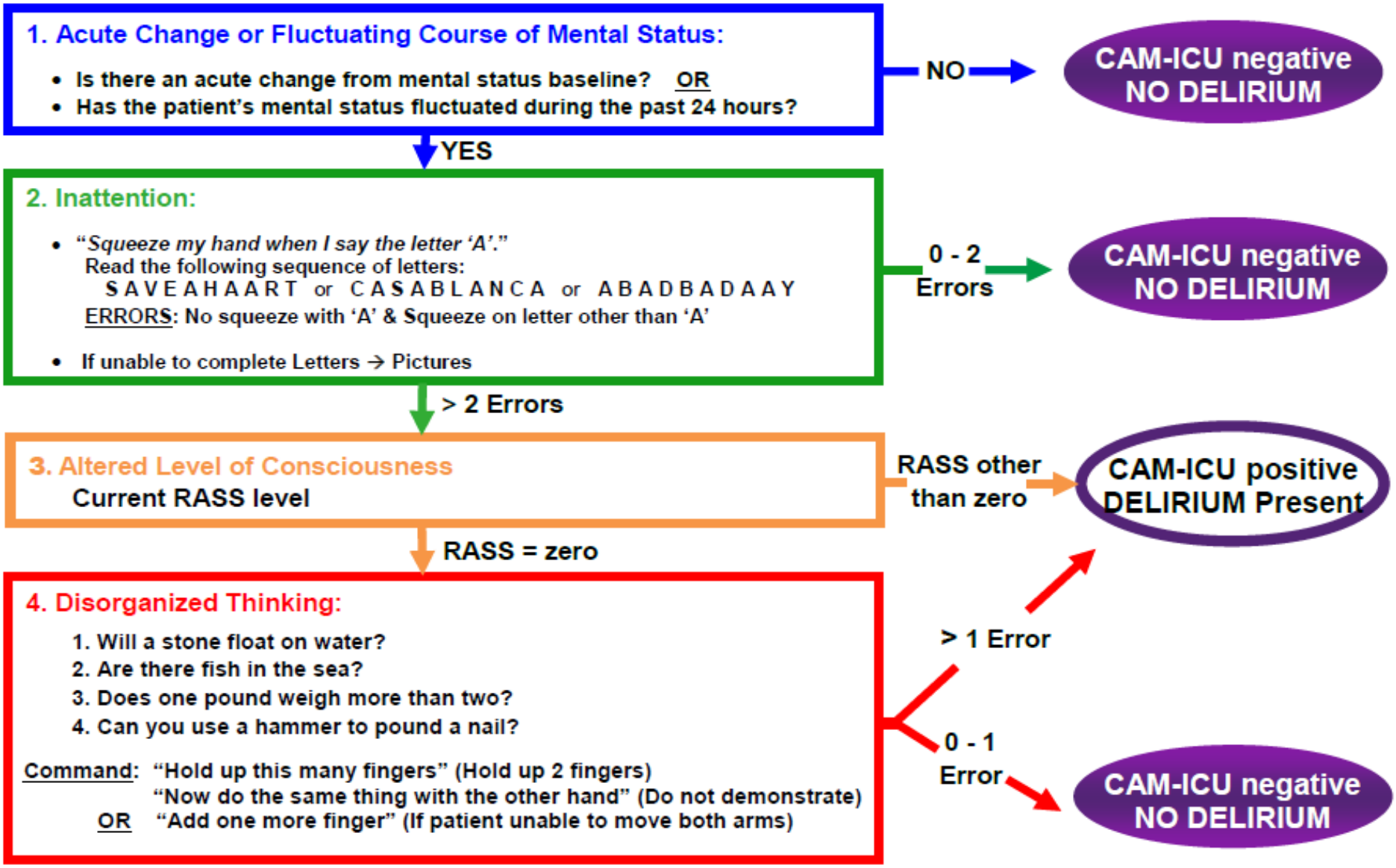
- Disturbance of attention,
- develops over short time,
- change from baseline,
- accompanied by changes in cognitive domain, such as memory, disorientation, language, perception, that cannot be accounted for by pre-existing or other neurocognitive disorders;
- occurs in context of severely reduced level of arousal

APA, 2013

Delirium, Dementia or BOTH

1. Cognitive impairment increases risk of delirium nearly three-fold (Inouye et al. Annals Int Med. 1993)
2. 22-89% of delirium cases are superimposed on dementia (Fick et el. J Am Geriatr Soc. 2002)
3. 60% of patients who experience delirium while hospitalized develop dementia (Witlox et al. JAMA.2010)
4. Patients with delirium and dementia with "neuropsychiatric symptoms" have similar poor outcomes (Holtta et al. Am J Geriatr Psychiatry.2011)

Confusion Assessment Method for the ICU (CAM-ICU) Flowsheet



ABCDEF Bundle

- A Assess manage pain
- B Both spontaneous breathing and awakenings
- C Choice of analgesia and sedation
- D Delirium assessment
- E Early Mobility
- F Family engagement

Interdisciplinary Rounds

- Face to Face Bedside rounds are invaluable, especially with the night nurse

- What is the RASS, is this where we want it
- What has the CAM been for the last 24 hours
- What medications Have we addressed pain,

- Is the family present
- Mobility plan of care

Managing Delirium

lots nurses can do

- Engage family: liberal visitation
- OOB

- Music
- Restraint alternatives-Busy boards, purse
- Clocks/ Calendar/ Assistive Devices
- Pain programs/ Constipation

Cares Distraction Supplies

- Restraint alternatives-Busy boards, fishing vests, puzzles, stress balls
- CD's for music
- DVD's for movies
- Early Mobilization
- Assistive Devices, hearing amplifiers, magnifying glasses
- Prism glasses

Questions?

- Networking call – March 23, 2016
  - Topic: Awareness and Assessment
  - 11:00-12:00 (CT), 12:00-1:00 (ET)
  - 1-800-791-2345 code 14357
  - Registration link: https://web.telspan.com/register/239mnhospitals/del323

Thank you!