Management of the Altered Patient

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Learning Objectives

- Identify life-threatening causes of AMS
- Perform immediate lifesaving nursing/EMS interventions
- Manage agitation safely
- Communicate findings effectively

Defining Altered Mental Status

- Any deviation from a patient's baseline mental status
- Could present as agitation, lethargy, unresponsiveness, hallucinations
- It is important to recognize these are High Risk Patients !

Why AMS Matters

- First and foremost it is an immediate threat to you and the patients around you!
- Often can be one of the first signs of critical illness
- SAFETY

Altered Patient's Impact on Safety

- Altered patients, including those with impaired mental status due to delirium, dementia, intoxication, or psychiatric illness, significantly increase the risk of violence against registered nurses (RNs) in the emergency department (ED)

- These patients are often unpredictable, causing 60% of all violent incidents in some studies, and are frequently seen in the highest-risk areas of the ED, such as triage and on arrival (Copeland et al., 2025).

Key Questions to Ask

- Acute vs chronic?
- Medical, neurologic, psychiatric, toxicologic, or metabolic?
- What could kill the patient *right now*?

Potential Causes of AMS

- Psychiatric Causes
- Medication Causes
- Infection/Sepsis
- Alcohol/drugs
- TBI
- Delirium/Dementia
- Trauma

Primary Survey
ABCD(E)

- Airway: Protection and aspiration risk
- Breathing: hypoxia, CO2 retention
- Circulation: hypotension, shock
- Disability: GCS, pupils, glucose
- Exposure: Trauma, infection, temperature

Immediate Nursing/EMS Actions

- Oxygen
- Cardiac Monitor
- IV access
- Fingerstick glucose
- Naltrexone when indicated

High-Risk & Must-Not-Miss Causes

- Hypoglycemia / hyperglycemia
- Hypoxia / hypercapnia
- Sepsis
- Stroke / intracranial bleed
- Toxic ingestion / overdose
- Alcohol withdrawal
- Medication effects (polypharmacy, anticholinergics, benzos, opioids)
- Electrolyte disturbances (Na^+, Ca^{2+})
- Uremia, hepatic encephalopathy

Safety Scenarios

A 80 year old male residing in an assisted living facility is found down by a housekeeper near his toilet. He is screaming "take me to the promised land" over and over again, and will not answer any questions. The nursing staff at the assisted living facility call 911 and EMS is in route.

80 year old found in bathroom

- What are key things EMS will want to know regarding this situation?
- What are things EMS can do that will keep the situation de-escalated?
- What are things EMS can do that will escalate the situation?

How to talk to altered patients

- Do not ask them to conform to your reality
- Do not make false promises
- Do not act like their mom, you can give direction, but should be respectful and at their level.

Documentation of Interactions

- Clear concise documentation that is not based on feelings about the patient
- Describe behaviors and use quotes when able
- Make note of anyone in the room with you

Documentation Examples

A.) Upon entry into room patient is quiet cranky and states," get the hell out of my room or I will call my boss on you!"

OR

B.) Upon entry into room, patient appearing restless, fidgeting and states," get the hell out of my room or I will call my boss on you."

Documentation Example

A.) Patient angrily tossing around in bed, writer instructed that she must lay still until the doctor sees her as we do not know what injuries she could have and she risks paralysis if she moves around or takes c-collar off.

OR

B.) Patient appearing restless in bed, fidgeting with covers and blood pressure cuff, instructed that the doctor was tending to another patient at the moment, but he would be in as soon as possible. Asked if patient was in pain.

Patient Scenario

78 year old male brought in via private vehicle with his daughter. Daughter states she went to do a check on him and found him in the same clothes he was wearing 2 days prior which were soiled, and noticed he had not been taking his medications. He was found sleeping under his kitchen table stating, “you want to come play hide and seek with me?” You are working triage and the ER is full. What are your options for this patient? What kind of environment can you provide to prevent escalations?

Identifying Environmental Factors

- Lights, monitors, beeping
- Several different people in and out of their room
- Boarders in the ER- maintain sleep wake cycles
- Providing familiar faces when possible
- Limiting amount of room changes when possible

Patient Scenario

85 year old female presents secondary to altered mental status at her assisted living facility. Staff report that she was talking to a dog that was not there. She was brought in via EMS. You are her nurse and hear her yelling, “Get me out of this transformers movie right now!”

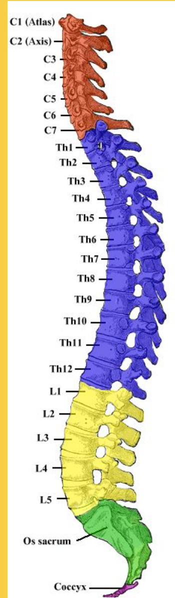
What can you do, and what environmental factors do you feel are contributing to her believing she is in a transformers movie?

Understanding Mechanisms of Injury and Associated Patterns

- Will an elderly patient always present with tachycardia when in a shock state?
- Why or why not?

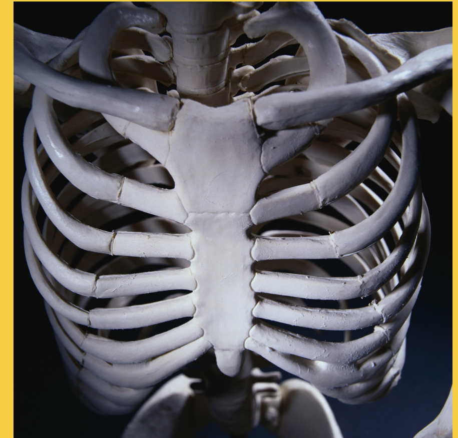
Injury Patterns

- Approximately 5% of individuals with brain injury have associated spinal injury
- 55% of spinal injuries occur in the cervical spine
- Up to 10 % of people with cervical spine fracture have a second, non contiguous vertebral body fracture

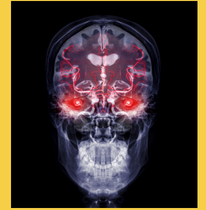


Rib Fractures

Elderly patients who sustain blunt chest trauma with rib fractures have twice the mortality and morbidity of younger patients with similar injuries.[21] For each additional rib fracture in the elderly mortality increases by 19%, and the risk of pneumonia increases by 27% (Gowing, Jain, 2007).



Blunt Cerebrovascular Injuries



- Certain injury mechanisms can be suggestive of a BCVI.
  - Direct blow to neck, hyperextension injury with contralateral rotation, stretch of the carotid artery over the lateral processes of the spine

- What is the biggest risk associated with these injuries?

- Latent period time frame (hours to years), with majority having symptoms symptoms between 10-72 hours

- Screening criteria : High energy mechanisms: Le Fort II and III fractures, cervical spine fractures, basilar skull fractures, diffuse axonal injuries with GCS less than 6 or hanging injuries, certain thoracic injuries (1st rib fx)

Stroke Risk Associated with Grade

- Grade 1 3-8%
- Grade 2 11%
- Grade 3 33%
- Grade 4 44%

The obtunded/non-responsive patient

The proper radiographic assessment for obtunded or unevaluable patients is extremely important given the difficulty in accurate clinical assessment and concern for an unidentified injury causing catastrophic neurological damage.

What are the current recommendations?

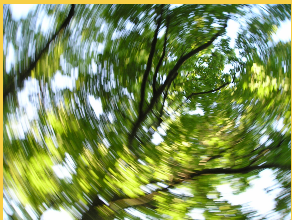
Traumatic Brain Injuries

- From the moment you receive these patients what should be your primary goal?
- How do you achieve this?

Treatment and Managment of TBI’s

- Dizziness
  - SLOW position changes, ensure adequate hydration, encourage patients to try to focus their eyes on one fixed object in the room
  - Occasionally can use medications such as meclizine, but this rarely helps

- Brain fog
  - Adequate sleep plays a huge role
  - Appropriate amounts of mental stimulation



Management Continued

- Anger
  - STOP TELLING ME WHAT TO DO!!!
  - Recognize prior contributing factors such as nicotine, caffeine, alcohol
  - How about a benzo??

Managing Hunger and Nausea

- Nausea
  - Small snacks, nothing with strong odors, and allow patient to graze initially
  - Antiemetics such as zofran and phenergan can be helpful

Treatment of TBI's continued

- Headache
  - Assess for sensitivities to sound, light, smells, movement
  - Medications
  - Therapeutic interventions
    - Don't forget about the neck!
  - Maintaining blood pressure with systolic readings no greater than 150, but also ensuring adequate MAP

- Blurred vision
  - It is not uncommon to have some individuals with difficulty seeing or tracking words following a TBI. If these symptoms persist may to ocular therapy outpatient.

- YOU are often the key to keep these patients comfortable, by promoting independence when able, anticipating needs, and offering these patient's reassurance that you are there to help and for the vast majority of these patients symptoms begin to retreat within 14 days

What is in your control?

- YOU are often the key to keep these patients comfortable, by promoting independence when able, anticipating needs, and offering these patient's reassurance that you are there to help and for the vast majority of these patients symptoms begin to retreat within 14 days.

But.......What if things escalate?

- Get back to the basics, what did your mom tell you growing up?
- Be proactive instead of reactive
- Understand potential triggers of behavior such as hunger, pain, fatigue, difficulty understanding, needing to use the bathroom, and do not count on the patient to be able to articulate all those needs to you.
- Do not attempt to rationalize with them, They are not in a rationale state and this will only make them more angry.

Nursing Focus

- Prevent secondary insults
  - Hypoxia and hypotension (2 of the worst insults)
  - Hyperglycemia (Glucose between 80-180)
- Elevate HOB 30 degrees to decrease intracranial pressure (Once c-spine cleared)
- Hold chemical VTE prophylaxis until stable head CT 24 hrs.
- Keppra BID x 7 days to prevent seizures following head injury
- Goal serum NA >135
- Call Trauma Surgery/Neurosurgery with any changes in mentation or s/s of increasing intracranial pressure, but also be aware of increased risk for delirium

Quick Reference for TBI's

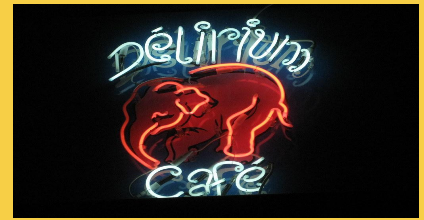
Medical Interventions

- Head of bed 30 degrees once c-spine is cleared
- Keppra Bid x 7 days
- Avoid hypoxia, hypotension, and hyperglycemia
- Keep electrolytes in range (sodium)
- Hold DVT prophylaxis until cleared by neurosurgery (generally after repeat head ct is stable if head bleed)
- Commonly used medications for symptom management
  - Fioricet for headaches
  - Meclizine for dizziness
  - Melatonin for sleep
  - Zofran nausea/Sometimes scopolamine patch
  - Zyprexa- agitation (will need EKG to evaluate QT interval prior to starting any antipsychoitic)

Behavioral Interventions

- Give as much autonomy as you can and do not be bossy.
- Anticipate potential symptoms such as nausea with food, encourage foods that do not have strong odor, and pre-medicate with anti nausea medications as appropriate
- Decrease stimuli
- Slow position changes
- Allow patient time to vent their feelings, often feel hopelessness, loss of control, and fear
- Regulate light to promote healthy sleep wake cycle

Delirium

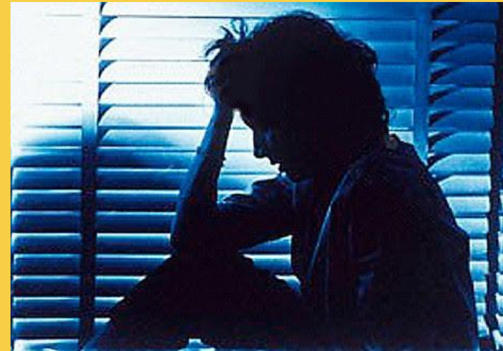


- By Definition is ACUTE generalized brain dysfunction (This is what differentiates it from Dementia)
- Fact or Fiction: Delirium only affects the elderly
- Fact or Fiction: There is only one type of delirium and that is crazy!
- Symptoms: Hallucinations, delusions, paranoia, fear, anger, irritability, "Sundowning", Increases sympathetic activity such as hypertension and tachycardia

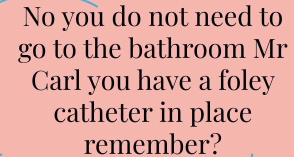
Mr Rogers was fine 30 minutes ago and now he is calling 911 saying there are elephants on the loose in his room!

Delirium Risk Factors

- Older age
- Low cognitive reserve (prior stroke history or with dementia)
- Alcohol or substance abuse
- Illness requiring intubation
- Visual or auditory impairment
- Pain, catheters, Shock, sepsis, sleep deprivation, dehydration, medications, metabolic derangements.



Delirium Causes



- Medications to AVOID
  - Benzodiazepines, Zolpidem, Antihistamines, Anticholinergics, Opioids, Anti Seizure medications, muscle relaxers, certain antibiotics, Steroids, H-2 blockers, Reglan, Parkinson's medications

- Think about hypoxia, electrolytes, TBI's, encephalopathies

- Think about environment- Is it Ok for Mrs. Johnson who is already showing signs of paranoia to have her TV on overnight? Do we all sleep with remotes that talk to us?

Delirium Treatment

- Treat infections
- Restore fluid and electrolyte abnormalities
- Ensure the patient has a voiding plan in place and a good bowel regimen
- Stop the criminal medications (bring to providers attention as possible cause)
- Ensure adequate pain control, but limit use of narcotics
- Treat hypoxia or hypercapnia
- Manage withdrawal symptoms via CIWA protocols if alcohol withdrawal
- Give patients their hearing aides, glasses, dentures, provide quiet environment

But.....What if it escalates

Ms. Cirus you need to get back into bed and stop streaking down the hall without your gown!

- Remain calm at all times. Your patient is in a heightened state of fight or flight
- Do not attempt to continuously reoriente as this often frustrates the patient
- Find something to connect with the patient on (this is where being proactive helps)
- Do not contribute to the confusion
- Medications

Recap- What can I do?

- I understand the signs of delirium and realize that it is not always associated with hyperactivity but can also manifest as hypoactive activity.
    - I understand which patients are at most risk for development of delirium and can screen those patients closely while also ensuring they are not on offending medications, electrolytes are regulated, pain is controlled, they are having regular bowel movements and voiding appropriately.

    - I can provide patients with an outlet for anxious energy.
        - Fidget tools as appropriate, coloring, looking through old photos, walking in the halls,
        - I understand that TV is not an appropriate way to release anxious energy and can often add to the confusion

    - I can ensure they have all the appropriate assistive devices such as hearing aides and clean glasses.

    - I can build rapport with these patients early in their hospital stay learning likes and dislikes so if things do escalate I may have something to connect with them .

    - Medications can be used as a last resort, but I should avoid medications like ativan and benadryl, as these have been found to make symptoms worse.

Dementia

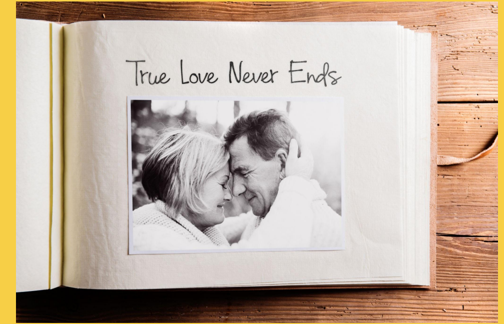
- Defined as a group of thinking and social symptoms that interfere with daily functioning
- Why is it that Mrs Smith believes she needs to get dressed and catch the bus for elementary school, but can not remember I just told her to stay in her room?
- Why won't Mrs Smith stay in bed?

Recap- De-escalation

- I understand that often long term memories are preserved, and patients may find comfort in reminiscing about their parents or favorite activities they did in the past.
    - For example: "I need to find my mom"
        - You can assure patient you are here to help them and ask them to tell you more about their mom and the things they and their mom enjoyed doing.

- Do NOT tell them what they can and can not do as this will almost always escalate behaviors.
    - Instead find creative ways to tell them yes
        - For example: " I have to go"
            - Instead of saying no, ,say ," I agree lets go to the bathroom before we decide to take a walk."

De-escalation



- Do not contradict or attempt to re-orientate
- Gain an understanding of things they like and dislike from family if able so that you have a way to connect.
- If things escalate and nothing seems to help, sometimes a different person, who can come in and validate their feelings can de-escalate.
- It is important to catch these types of behaviors before they are completely escalated.

Wrapping it up

- We take away so much from patients when they enter our hospital, look for ways to give them back their independence or individuality.
- Build rapport early on with these patients to decrease safety concerns
- Provide patients with ways to reduce fears or anxiety
- Pay close attention to subtle clues that mood is changing so that you can act before things escalate.
- Medications and restraints are the last resort and can sometimes be avoided with implementing therapeutic environment.

References

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