



Level of Consciousness Changes

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Pathophysiology

- Change in level of alertness and orientation to person, place, time and situation (A&O)
 - Person's awareness of themselves and their surroundings
- Causes of level of consciousness changes
 - Increased ICP
 - Injuries to the brain (concussion, stroke, etc)
 - Shock
 - Trauma, decreased GCS
 - Hypoxia
 - Exposure to toxins/pollutants
 - Hyper/hypoglycemia
 - Medication toxicity
 - Use of drugs or alcohol
 - Dehydration
 - Some diseases such as diabetes, dementia, Alzheimer's



Clinical Manifestations

- Decreased respiratory rate
 - Fainting
 - Poor balance, falling, stumbling
 - Lightheadedness
 - Seizures
 - Loss of bladder/bowel control
 - Decreased ability to speak
 - Lethargy
 - Confusion
 - Fever
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Medical Management

- **Diagnosis**
 - Done by determining the patient's responses to stimuli and questions
 - This can be painful stimuli, assessing cough and gag reflexes, and assessing speed and accuracy of answering questions
- **Medications**
 - Medication usage to assist in altered levels of consciousness depend on underlying cause
 - Example: opioid overdose resulting in decreased LOC → administer Narcan
 - Example: administer TPA to break clot in ischemic stroke situation
 - Example: medication to help slow progression of Alzheimer's
- **Surgery**
 - Can be used to treat the cause of decrease in consciousness
 - Example: evacuation of a clot in a subdural hematoma



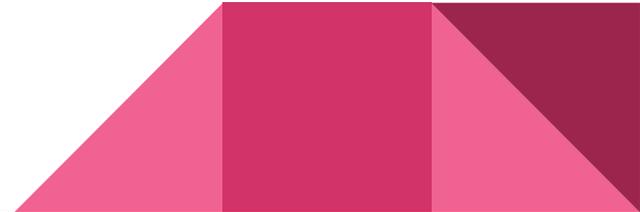
Nursing Management/Interventions

- Protecting the patient from injury
- Maintain patent airway and protect against aspiration
- Fall risk precautions
- Frequent neuro checks
 - Glasgow coma scale

Behaviour	Response
 Eye Opening	<ol style="list-style-type: none">4. Spontaneously3. To speech2. To pain1. No response
 Verbal Response	<ol style="list-style-type: none">5. Oriented to time, person & place4. Confused3. Inappropriate words2. Incomprehensible1. No response
 Motor Response	<ol style="list-style-type: none">6. Obeys command5. Moves to localised pain4. Flex to withdraw from pain3. Abnormal flexion2. Abnormal extension1. No response

Complications

- Injury risk
- Fall risk
- Risk for aspiration/swallowing difficulty
- Impaired airway and risk for hypoxia
- Limited ability or unable to communicate depending on level of change



Questions

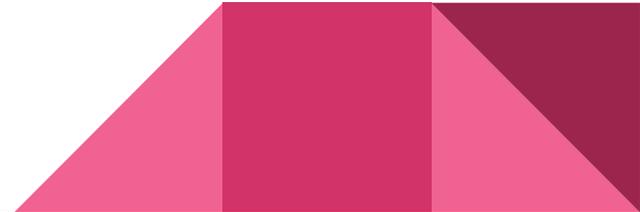
- What are some examples of fall precautions? (SATA)
 - A) Putting the bed in the lowest position
 - B) Ensuring the call light is within reach
 - C) Place the patient's food out of reach when it arrives
 - D) Let the patient go to the bathroom on their own
 - E) Use a gait belt when ambulating the patient
- What are some clinical manifestations of decreased level of consciousness?
 - A) Confusion
 - B) Excitement
 - C) Tachycardia
 - D) Tachypnea

Questions continued

- What are aspects used in assessing A&O (SATA)?
 - A) person
 - B) time
 - C) SSN
 - D) situation
 - E) place/location
 - F) address
- What would be an appropriate question to ask a person when assessing A&O?
 - A) Where did you grow up?
 - B) Where are you currently?
 - C) What is your great grandmother's name?
 - D) What highschool did you attend?

Questions continued

- Which of the following can cause changes in LOC?
 - A) Cerebrovascular accident
 - B) Fractured limb
 - C) Foodborne illness
 - D) Depression



References

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

Hinkle, J. & Cheever, K. (2018). *Brunner & Suddarth's Textbook of Medical-Surgical Nursing* (14th ed.). Wolters Kluwer.

