Prevention of delirium

Older adult care

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DELIRIUM
Diagnostic criteria according to the DSM 5[2]

1.
Altered state of consciousness

2.
Changes to cognitive functioning (memory, orientation, language)
OR
Disturbance of perceptions (hallucinations)

3.
Sudden manifestation of symptoms and fluctuating evolution during the day

Pathophysiology

Aging causes several physiological changes in older adult of 70 years and over, particularly in the nerve cells of the brain. The number of neurotransmitters decreases with age. These people then become more vulnerable to environmental changes and more at risk for complications such as delirium.[17]

Statistics

Delirium is a medical emergency that affects 30% of people aged 70 and over in a hospital setting in Quebec; 75% of these patients receive care on a surgical or intensive care unit.[8]

30 to 40% of delirium cases involving older people in a hospital could have been prevented if care had been adapted to this clientele by healthcare professionals.[11]

Prevention of delirium
Engaging the family [9,14]

According to Martinez, Tobar, Beddings, Vallejo and Fuentes's (2012) study, engaging the family in the prevention of delirium significantly reduced the incidence of this complication by about 60%.[14]

- Teach the family and the patient about delirium at admission and prior to surgery and reinforce it.
- Invite the family to participate in care to prevent delirium.
  - o Reorient the patient:
    - Mention the date and time to the patient;
    - Bring a calendar and a bedside clock.
  - o Optimize the senses of the patient:
    - Ensure the wearing of glasses, dentures and hearing aids.
  - o Cognitively simulate the patient:
    - Talk about recent events;
    - Social activity.
  - o Change the environment:
    - Bring a familiar object into the room.
- Encourage a significant presence of the family.
  - o 5h of visiting time per day.

Prevention of delirium
The environment [10,13,18]

Daytime sleeping is associated with a higher risk of cognitive complication and functional decline in older adults. [6]

Sleep optimization :

- Open the curtains or turn on the lights during the day;
- Promote mobilization during the day;
- Reduce light and noise in the evening;
- Change times of medication administration to promote sleep.

Decrease the number of tubing and medical devices attached to the patient :

- Assess the appropriateness of maintaining continuous intravenous (IV) infusion, urinary catheter and oxygen therapy;
- Make a nursing suggestion to the medical team to stop what seems irrelevant;
- Hide the infusion IV pump or put any device out of sight of the patient.

Optimizing the senses :

- Upon admission, find out if the patient wears dentures, glasses or hearing aids.
  - o Add information on the whiteboard at the bedside for follow-up;
  - o Invite the family to participate. [Engaging the family]

Prevention of delirium
Mobilization [10, 13, 18]

- Promote patient independence.
  - o Educate the patient and family about the importance of mobilization to prevent delirium.

An older adult who does not mobilize loses 10 to 12% of her/his muscular strength per week, especially in the lower limbs. [5]

- Evaluate the mobility of patient upon arrival to know her/his baseline:
  - o Record information in the chart and add it to the whiteboard at the bedside for follow up.
- Make sure that the patient sits in her/his chair at each meal.
- Invite the family to walk with the patient to prevent delirium. [Engaging the family]

Hydration and nutrition

The feeling of thirst tends to diminish in an older adult. [12]

- *Encourage the patient to drink.*
  - *o Add information on the whiteboard at the bedside.*
- *Make sure the patient always has water at his bedside.*
- *Show the departmental family kitchen to the patient and her/his family so that they can access water.*
- *Invite the family to participate in delirium prevention by ensuring the hydration of the patient. [Engaging the family]*
- *Ensure the rapid progression of the post-operation diet according to Enhanced Recovery After Surgery (ERAS) recommendations.*

Prevention of delirium
Pain relief [7,15,16]

The pain of older adult is often undertreated. Unrelieved pain increases the risk of delirium. [15]

Post-operation context of a general surgery.

- Re-evaluate the pain more frequently, q2h.
- Make suggestions to the medical team to ensure adequate pain management:

Tylenol [Acétaminophen]	Regular : **1g QID** (max 4g)
***Advil** [Ibuprofen] -- or-- **Naproxen** [Naprosyn]	Régulier : **400mg BID with meals** -- or -- Régulier : **250-375 BID with meals**

- It is recommended that narcotics be started at a dose of **50 to 70%** of the normal dose given to an adult and that the intervals between doses be increased.

Opioïde**	**Normal adult dose**	**Older person dose**
Morphine PO	5-10 mg q4h	2,5-5mg q6-8h
Dilaudid PO [Hydromorphone]	1-2mg q4h	0,5-1mg q6-8h

*** Risk of gastric bleeding and kidney failure.**
**** Pay special attention to the prevention of constipation.**

Prevention of delirium
Polypharmacy

Rapid addition of 3 new drugs to the list of the patient's medication increases the risk of delirium. [1,11]

- Compare the patient's medication lists from the hospital to that from home.
  - o Make a nursing suggestion to stop medications that seems unnecessary.

- Avoid the use of anticholinergics.
  - o Indication: decrease involuntary movements.
  - o Example :
    - Oxybutynine [Ditropan], Belladonna Alkaloide, Spiriva [Tiotropium], Atrovent [Ipratropium] and Scopolamine, Glycopyrrolate.

- Avoid the use of benzodiazepine.
  - o Indication: Relaxing agent.
  - o Example :
    - Ativan [Lorazepam], Versed [Midazolam], Serax [Oxazepam], Valium [Diazepam], Xanax [Alprazolam] and Klonopin [Clonazepam].

Prevention of delirium
Specificities in people living with Alzheimer's disease

Patients with Alzheimer's disease or a related condition are predisposed to delirium in hospitals. If not treated quickly, these elderly adult may end up with irreversible cognitive impairment or an acceleration of the process of Alzheimer's disease. These are two interrelated health problems and preventive measures must be swiftly implemented.[11]

• Determine the mental state of the patient upon arrival as a baseline to quickly identify the start of delirium.
  o Document the **CAM** on every shift.

• Apply the preventive interventions mentioned in this guide:
  o environment, mobilization, hydration and nutrition, pain relief, polypharmacy and family engagement.

• Communicate calmly and slowly with the patient:
  o Ask short-answer questions;
  o Reduce environmental stimuli;
  o Keep eye contact with the patient.

• Use cognitive stimulation :
  o Initiate a short conversation with the patient about her/his interests each time you enter the room;
  o Suggest activities such as reading, puzzles, Sudoku or crosswords;
  o Invite the family to participate. [Engaging the family]

Patient experience
During an episode of delirium [3,4]

Patients presenting delirium are not just confused, they are also aware of their inconsistency, their environment and they are able to understand explanations. They keep memories of how they were treated by the caregivers. [3,4]

• Be sensitive to their fear, frustration, distress and shame

• To reduce agitation:
  o Explain the situation to the patient.
    • Legitimize the patient's experience;
    • Bring the patient back to reality if it does not cause additional distress;
    • Explain the cause of her/his confusion.
  o Reorient regularly (time, space and person).
    • Regularly update information on the whiteboard at the bedside.
  o Ensure a more frequent presence of caregivers.
  o Ensure a more frequent presence of the family. [Engaging the family]
  o Listen to the needs of the patient rather than limit her/him because of her/his confusion.
  o Avoid or reduce the use of physical and chemical restraints.
  o Communicate calmly and slowly with the patient.
    • Attention level is decreased during delirium.2

• Apply all preventive interventions mentioned in this guide to help reduce the symptoms and the duration of the delirium:
  o environment, mobilization, hydration and nutrition, pain relief, cognitive stimulation, decrease of polypharmacy and family engagement.

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