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INTRODUCING

Christine Lalonde

RN, BScN, MN, GNC (C)

Christine graduated with her diploma in Nursing from St Laurence College in 2002, completed her Bachelor of Science in Nursing from the University of Ottawa in 2010, and in 2022 obtained her Master of Nursing in the Leadership stream at Athabasca University and CNA certification in Gerontology. Christine has worked in various roles including as a Registered Nurse in Critical Care and Emergency departments, PICC Nurse, home and community care coordinator, Clinical Care Leader, Advanced Practice Nurse for the Geriatric Emergency Management team, and Clinical Manager on General Internal Medicine, Emergency department and Geriatric Medicine Unit.

As the Advanced Practice Nurse for the Geriatric Emergency Management (GEM) team and the Geriatric Medicine Consult Team (GMCT) of the Ottawa Hospital, Christine shares her knowledge and expertise in the assessment and management of frail older adults across the spectrum of care, leads the GEM and GMCT team, and advocates for exemplary care for older adults.

ADVANCED PRACTICE NURSE

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www.rgpeo.com

DELIRIUM

Prevent-Assess-Manage

Christine Lalonde

Advanced Practice Nurse

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ACKNOWLEDGEMENT

This presentation has been adapted from the October 2018 Delirium: Prevent-Assess-Manage from Laura Wilding used for the RGPEO Geriatric Education Series (N.D. origin version)

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LEARNING OBJECTIVES

1. Define delirium & understand relevance to care
2. Discuss prevention strategies
3. Provide an overview of delirium assessment
4. Review approach to management
5. Discuss resources

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DELIRIUM

A disturbance of consciousness with inattention that develops over a short time & fluctuates.

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CHAT

What Clinical Features of Delirium have you seen in your practice?

Place your answers in the chat.

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THE NINE CLINICAL FEATURES OF DELIRIUM

1. Acute Onset & Fluctuating Course
2. Inattention
3. Disorganized Thinking
4. Altered Level of Consciousness
5. Disorientation
6. Memory Impairment
7. Perceptual Disturbances
8. Increased or Decreased Psychomotor Activity
9. Disturbance of the Sleep Wake Cycle

Inouye, S., et al.(1990). Clarifying confusion: The Confusion Assessment Method, a new method for detecting Delirium. Annals of Medicine, 32, 257 - 263.

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MAY ALSO INCLUDE

Behavioural symptoms

✓Agitation – aggressive or non-aggressive

✓Trying to escape one's environment

✓Depression or euphoria

✓Sensitivity to light & sound

✓Sensitivity to light and sound

Functional symptoms

✓ Incontinence

✓ Falls

Autonomic Symptoms

✓ Hypertension

✓ Tachycardia

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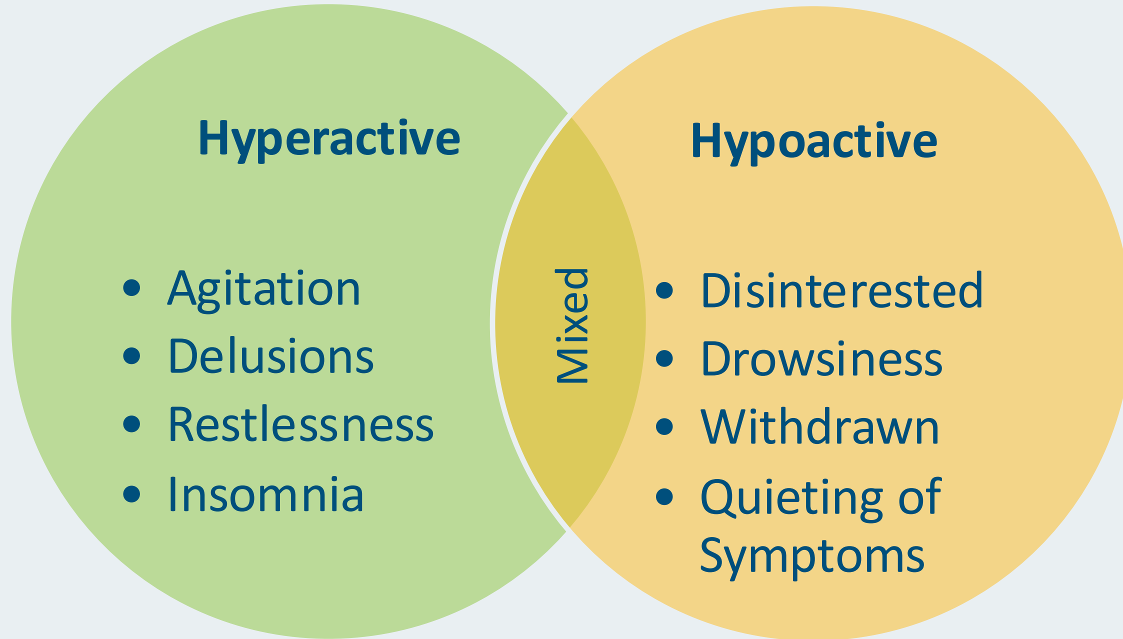
DELIRIUM HAS 3 MAIN TYPES



Common!
Under Recognized!
Dangerous Costly!

Delirium is a medical emergency

Reversible & preventable

Can happen at any age

Symptoms can come and go

- Disturbance of consciousness
- Change in cognition
- Acute onset
- Caused by consequences of a medical condition, substance intoxication or withdrawal, or can be caused by multiple etiologies

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DELIRIUM VS. DEMENTIA

	DELIRIUM	DEMENTIA
ONSET	Sudden and abrupt confusional state that is different than their baseline; hours to days	Gradual progressive decline over time; chronic, irreversible
AWARENESS	Reduced awareness of their environment	Clear
ALERTNESS	Fluctuates; can be hypervigilant or lethargic	Generally, normal.
ATTENTION	Impaired; unfocussed	Generally normal, may progress over time
ORIENTATION	May fluctuate but can be "A & O x 3"	Decreases over time
DELUSIONS HALLUCINATIONS	New onset of delusions or hallucinations common	Generally, with late-stage disease

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DELIRIUM CAN BE MISSED!

1. Delirium is often unrecognized and misdiagnosed as depression or dementia or may be misattributed to aging.
2. A number of health conditions—including neurocognitive, mood, anxiety, and psychotic disorders—may mimic delirium.
3. Without prior knowledge of the person's mental status and functional baseline, distinguishing between disorders can be especially difficult.
4. Delirium can be easily overlooked in people living with dementia because some of the symptoms overlap, and many people have both conditions (22% to 89% of people in the community and hospital have both).

In the case of uncertainty over whether delirium or dementia or both are present, it is best to assume it is delirium!

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TOP REASONS FOUND IN RESEARCH FOR WHY DELIRIUM IS UNDERRECOGNIZED:

1. Lack of knowledge
2. Lack of continuous review (professional development)
3. Communication (Between HCP)
4. Confounders (baseline dementia, fluctuation, visual impairment, association of symptoms to other conditions)
5. Interdisciplinary Team Models (who is MRP to assess and DX)
6. Organizational constrains (HHR, guidelines, environmental factors)

Systematic Review in 2007-2023 (Bianci et al.)

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POLL

1. What do you think is the percentage of cases where Delirium can be prevented?

2. Delirium has been identified as the third most common harmful even experienced by those admitted in a Canadian Hospital

True or False?

3. Where do you think the highest rates of delirium occur?

- ICU
- Post-surgical care
- Palliative Care
- LTC and Post acute care
- Community

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THE DATA

- Delirium has been identified as the third most common harmful even experienced by those admitted in a Canadian Hospital
- It is believed that delirium can be prevented in 30-40% of cases!
- Prolonged delirium, in which the symptoms persist at or beyond discharge from hospital, may occur in 29% to 55% of patients.
- In up to 30% of cases, no cause of delirium can be found
- Rates of delirium
  - Hospital 29-64%
  - ICU 19-82%
  - Post-surgical care 11-51%
  - Palliative Care 42-88%
  - LTC and Post acute 20-22%
  - Delirium is present 8-17% for those who present to the ED
  - Community 1-2%

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WHY IS IT IMPORTANT TO RECOGNIZE DELIRIUM?

Delirium can result in:

- ✓ Morbidity & mortality
- ✓ Length of stay
- ✓ Caregiver burden
- ✓ Rates of admission to LTC

Delirium is a predictor of:

- ✓ Cognitive decline
- ✓ Functional decline

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WHAT PUTS PEOPLE AT RISK FOR DELIRIUM?

Non-modifiable factors:
(patient related vulnerabilities)

- Age (> 65 years)
- Sensory impairment
- Poor premorbid status:
  - Multiple co-morbidities
  - Poor nutritional status
  - Poor function
  - Frailty
- History of cognitive concerns:
  - Previous delirium
  - Previous head injury
  - Dementia
  - Depression and/or anxiety
  - Substance abuse

Potentially modifiable factors:
(consider impact of being in-hospital)

- Multiple medications and/or high-risk medications
- Metabolic/electrolyte imbalances
- Dehydration
- Anemia
- Hypoxemia
- Surgery (especially hip fractures)
- Infection
- Pain
- Constipation
- Immobilization (bedrest, restraints)
- Poor sleep
- Treatment (NPO, catheters, new meds)
- Unfamiliar or change in environment

DELIRIUM PREVENTION

Table. The Most Common Components of Successful Delirium Prevention Programs
Anesthesia protocols
Assessment of bowel/bladder functions
Early mobilization
Extra nutrition
Geriatric consultation
Hydration
Medication review
Pain management
Prevention and treatment of medical complications
Sleep enhancement
Staff education
Supplemental oxygen
Therapeutic cognitive activities/orientation
Vision and hearing protocols

Reston, J., & Schoelles, K., 2013

Image by Pete Linforth from Pixabay

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CHAT

What Tool do you use to assess for Delirium in your Practice?

Put it in the chat box!

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DELIRIUM ASSESSMENT TOOLS

4AT: Short Simple <2min, always gives you a score

1. Alertness
2. AMT4: Abbreviated Mental Test – 4 (age, date of birth, place, current year).
3. Attention: Months of the Year Backwards
4. Acute change or fluctuating course

R.A.D.A.R. A rapid detection tool for signs of delirium

1. Was client sleepy?
2. Did the patient have difficulty in following your instructions?
3. Movements of the patient were they in slow motion?

Delirium Triage Screen: Less than 20 seconds and two components

1. Level of consciousness as measured by the Richmond Agitation Sedation Scale (RASS).
2. Inattention by spelling the word "LUNCH" backwards.

CAM tools: Most Referred to

1. CAM

- bCAM (brief CAM)
- CAM ICU

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The CAM Tool, a Deeper Dive

1. Acute onset of a change in normal mental status or fluctuating course

And

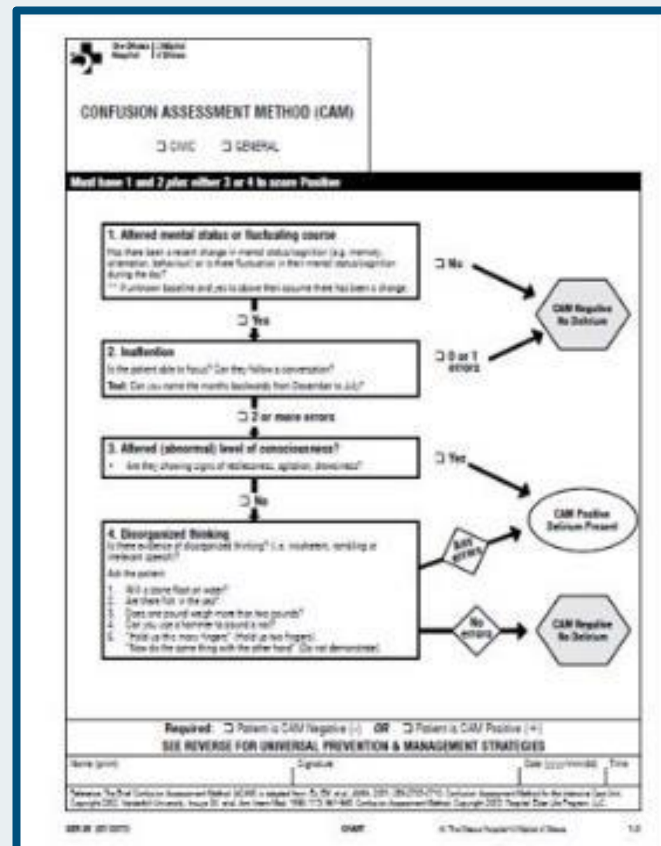
2. Inattention

And Either

3. Disorganized Thinking

Or

4. Altered Level of Consciousness


CONFUSION ASSESSMENT METHOD (CAM)

1. Altered mental status or fluctuating course

2. Inattention

3. Altered (abnormal) level of consciousness?

4. Disorganized thinking

SEE REVERSE FOR UNIVERSAL PREVENTION & MANAGEMENT STRATEGIES

The diagnosis of delirium requires the presence of features 1 and 2 and either 3 or 4.

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DELIRIUM ASSESSMENT

Follow your institutional policy and procedure recommendations. At TOH, patients are assessed:

- On admission
- Every shift
- After an abrupt change in cognition

Key components

- What is the patient's baseline status?
- Assess for risk factors:
- Patient factors
- Hospital related factors
- Collateral source for information
- Validated clinical assessment tool

Health Quality Ontario recommends assessing people for risk factors of delirium on initial contact with the healthcare system.

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MY PATIENT IS DELIRIOUS, NOW WHAT?

1. Notify the attending physician and the interdisciplinary team of CAM positive results. In community, make an appointment with GP as soon as possible*
2. Support the investigation of the root cause of the delirium.
3. Document. Document. Document
4. Monitor and reassess patient and response to interventions at least every shift and prn.
5. Support the patient and family.

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WHEN TO CONSIDER TRANSFER TO ACUTE CARE:

- If a serious underlying medical problem or injury requires emergency care
- If assessments are not available
- If cause cannot be confirmed following an assessment
- If care needs cannot be met, or
- If your clinical judgment says its needed

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Think DELIRIUM

D	Dehydration, dementia, detox
E	Electrolyte imbalances
L	Lungs, liver, heart, kidneys
I	Infections, UTI, elimination
R	Restraints, restrict movement
I	Injury, pain, impaired sensory, sleep
U	Unfamiliar environment
M	Meds, metabolic

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INVESTIGATING THE ROOT CAUSE

Anyone who presents with a **change** from their **baseline** cognition requires a full medical evaluation:

Physical exam
Full v/s
Medication review
Bloodwork
Urine R&M, C&S
ECG
CXR
CT head

Also consider:

- O2 sat; ABG
- Blood culture
- Drug levels
- ETOH

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CHAT

What do you think is the percentage of cases where no cause of delirium can be found?

Put it in the chat box!

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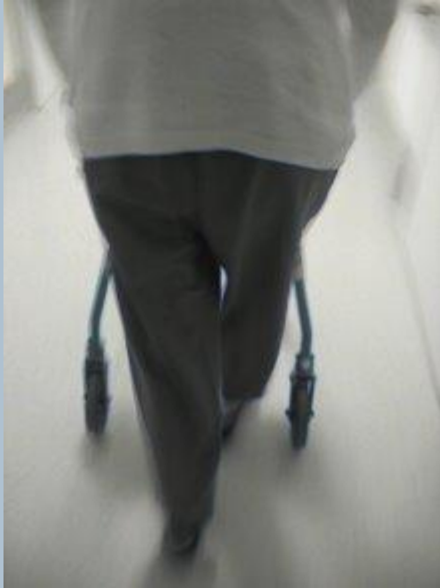
DELIRIUM MANAGEMENT

- Environment
- Nutrition & Fluids
- Mobilization
- Toileting
- Pain
- Medication Review
- Sleep
- Behaviour management



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Care Plan:	
Nutrition & Fluids	• Offer 60ml of water or beverage of choice at every interaction • Ask family to bring in familiar foods
Mobilization	• Bed in lowest setting • Up for meals, walk to BR • Get family to bring in proper footwear
Toileting	• Remove indwelling urinary catheter • Regular toileting regime • Initiate bowel routine
Medications	• Add acetaminophen QID and order regular schedule of analgesic • Meds: decrease metoprolol, add bowel protocol
Behaviour Management	• Approach in a calm manner; explain what you would like to do; assess for triggers • Hearing aids in place, clean glasses on • Reassure: "You're in the hospital and you are safe" • Orientation: Frequent gentle reorientation to place, date, time, staff • Distract: Tell me about your garden?
Engage the family/caregiver	• Sit at bedside • Pictures of his garden

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NON-PHARMACOLOGICAL STRATEGIES FOR BEHAVIOUR MANAGEMENT

- Reorientate the person as to the current day/month/year
- Ensure hearing and visual aids are being used
- Speak in a calm, soft reassuring voice
- Use positive non-verbal body posture
- Speak slowly and clearly; use simple sentences
- Reduce noise and remove items that may cause a distraction (e.g., turn off the TV while speaking to them)
- Assess for patterns and triggers
- Explain before doing & allow time for the person to respond
- Use reassurance, relaxation, diversion & distraction techniques
- Don’t reason, don’t argue

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BEHAVIOUR MANAGEMENT

- All behaviour has meaning
- What are the contributing factors/triggers?
- *All* patients require non-pharmacological strategies
- May consider pharmacological strategies only if absolutely necessary
- Tailor to individual needs
- Involve the family

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GENTLE PERSUASIVE APPROACHES (GPA)

- An interdisciplinary program to teach health care providers a person-centered, compassionate approach to assessment and response to behaviours associated with dementia
- Interactive, practical, skills-based
- GPA training is available monthly at TOH through NPPD Education days

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CHAT

What other successful strategies have used to support your patients/clients and their caregivers with delirium?

Put it in the chat box!

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PHARMACOLOGICAL INTERVENTION

Goals:

- To reverse behavioural symptoms
- Stop potentially dangerous behaviour
- Calm the patient to sufficiently evaluate & treat

Consider:

- Type and degree of behaviour
- Aggressive versus non-aggressive agitation
- Atypical versus traditional antipsychotics
- Always start low & go slow….

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Third Line

Second Line

Verbal or Physical Aggression

First Line

Agitation

Anxiety

Common Meds for Agitation/Aggression:

1

First line: Trazodone

- Daytime PRN vs. Regular use for anxiety/agitation, hold if drowsy, not past midnight
- Nightime use for sleep q 2000hrs and 2200hrs, hold if asleep

2

Second line: Antipsychotics

- Risperidone, Quetiapine, Olanzapine
- **CAUTION Parkinson's or Lewy Body Dementia**

3

Third line (last resort): Injectable such as Loxapine

- Avoid Haldol
- Lorazepam is used sometimes if anxiety is underlying trigger

GERIATRICS: START LOW AND GO SLOW

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Extrapyramidal Side Effects (EPS)

Side Effect	Onset
Acute dystonia: Involuntary muscular contraction which results in abnormal posture or movement. Typically involve muscles of the head and neck. Painful, needs treatment.	Hours to 5 days
Parkinsonism: Slow movements (shuffling gait, soft/weak voice), mask-like expression, tremor, rigidity, drooling, constipation	Few days but may emerge slowly over several weeks.
Akathisia: sensation of inner restlessness, a compulsion to keep moving, irritability, agitation	5-60 days
Tardive Dyskinesia: Involuntary movements such as lip smacking, tongue protrusion or pushing and other facial muscle movements	Months to years

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DOCUMENTATION

Document changes in mental status using the CAM & the progress notes

- “CAM positive” “acute confusion” “delirium”
- Describe the behaviour you see
- Chart interventions
- Document patient and family education
- Document re-assessment of delirium and patient’s response to interventions
- Communicate to the team
- Note triggers

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Behavior Documentation Tips

Word swap

Instead of…	Try this…
Aggressive	“While attempting to assist to standing position, patient screamed and pulled physiotherapist’s hair”
Agitated	“Patient leaning forward on edge of chair, voice getting louder” “Patient clenching jaw”
Confused	“Patient not oriented to time or place” “Patient not able to follow instructions”
Disruptive	“Patient repeating sounds loudly while peri-care provided” “Patient repeatedly calling for help while in X-ray”

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SUPPORTING THE PATIENT AND FAMILY

Delirium can result in significant distress for patient & their family

Engage the caregiver in the patient's care:

- ✓ Provide information about the person
- ✓ Bring in familiar items from home
- ✓ Stay with patient – reorient & reassure
- ✓ Assist with meals & ambulation
- ✓ Engage patient in activities

- ✓ Educate
- ✓ Reassure
- ✓ Resources

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DISCHARGE?

- Do we know the cause?
- Is there adequate supervision?
- Assess for home safety
  - ✓ Driving, smoking, cooking on the stove
  - ✓ Managing medications
  - ✓ Behaviour
- Consider:
  - ✓ Geriatrics, SW, Home & Community Care Support Services
  - ✓ Other community supports (community paramedics, remote monitoring programs, rapid response nurse)
- Education: patient & family
- Appropriate follow-up: GP, SGS

Reassessment after a delirium is essential!

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THERE ARE RESOURCES AVAILABLE TO HELP YOU!

- Regional Geriatrics Program of Eastern Ontario
- Registered Nurses Association of Ontario
- Health Quality Ontario
- The Delirium Aware Safer Healthcare (DASH) campaign
- This is Not My Mom website
- GeriMedRisk

New Delirium Quality Standards and RNAO BPG coming in 2026!

THANK YOU!

QUESTIONS?

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Contact Me

chrlalonde@toh.ca

rgpeo.com

(613) 798 - 5555 ext. 18564

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REFERENCES

1. 4AT. Rapid Clinical Test for Delirium. 4AT - Rapid Clinical Test for Delirium Detection
2. Bianchi, L. A., Harris, R., & Fitzpatrick, J. M. (2024). Barriers to healthcare professionals recognizing and managing delirium in older adults during a hospital stay: A mixed-methods systematic review. Journal of Advanced Nursing, 80, 2672–2689. https://doi.org/10.1111/jan.16018
3. Delirium, Dementia, and Depression in Older Adults: Assessment and Care, Second Edition https://rnao.ca/bpg/guidelines/assessment-and-care-older-adults-delirium-dementia-and-depression
4. Emergency Department Delirium http://eddelirium.org/
5. Geriatric Medicine Research Unit, Dalhousie University. Training video: delirium in an older adult https://www.youtube.com/watch?v=lJH1AoVuVS0
6. Health Quality Ontario. Quality Standards: Delirium: Care for Adults. : https://hqontario.ca/evidence-to-improve-care/quality-standards/view-all-quality-standards/delirium?utm_source=hootsuite
7. Health Quality Ontario. Quality Standard Placemat for Delirium. qs-delirium-placemat-en.pdf
8. OTN Hub: Delirium Learn how to identify, manage, and prevent delirium in the elderly Dr. Camilla Wong http://geriatrics.otn.ca/#tab1
9. This is Not My Mom www.thisisnotmymom.ca
10. Rabheru, K. (2019). Management of agitation in an acute care hospital setting: description of a practical clinical approach employed at the ottawa hospital. Canadian Geriatrics Society, vol9 (2).
11. Regional Geriatrics Program Toronto. Guidance for Clinicians on Delirium Care for Older Adults in the Community. Guidance-for-Clinicians-on-Delirium-Care-for-Older-Adults-in-the-Community.pdf