Fraser Health AUTHORITY

**Fraser North - Burnaby Hospital**

# Clinical Practice Guideline

## DELIRIUM IN THE ELDERLY
**(formerly referred to as Acute Confusion)**

1. **PURPOSE**

1.1 - To recognize symptoms of delirium.
1.2 - To provide appropriate interventions to clients experiencing delirium.

2. **BACKGROUND**

Delirium is a leading mental health problem for older adults. Prevalence of the disorder ranges from 10% - 56% (Lacko et al, 2000 p. 2). It is reported that between 10% and 40% of the elderly exhibit delirium on admission to hospital and another 10 - 15% develop delirium during hospitalization. McConnell '97, found 51% incidence of delirium in elderly persons with hip fractures. "Health care professionals do not adequately assess elderly clients and often blame altered behaviour on age or "senility" which leads to increased length of hospitalization, inappropriate placement in long term care facilities, increased morbidity and mortality, an increased incidence of falls and incontinence and perhaps inappropriate use of restraints and psychotropic medications" (Buckwalter '98).

Delirium is often not recognized or is misdiagnosed. There is a failure to use consistent terms as well as consistent diagnostic and assessment criteria. This contributes to deterioration of physical and cognitive functioning and a decrease in quality of life for the client as well as increasing costs and resource utilization by the health care system. Thus, it is important to increase our understanding and detection of delirium and implement appropriate, evidence based treatment options.

3. **DEFINITIONS**

3,1 **Delirium:** Is transient in nature and manifests itself as an acute impairment in cognition, attention, sleep - wake cycle and psychomotor behaviours. (Mentes '95).

It is a cluster of symptoms identified by a:

- Rapid onset (hours to days).
- Consequence of a general medical pathophysiological response.
- Disturbance of sensorium, consciousness, sleep - wake cycle, psychomotor activity behaviours.
- Inability to sustain attention.
- Change in cognition. Not accounted for by a pre-existing, established, or evolving dementia.
- Fluctuating symptoms throughout the day.

3.2 **Hyperactive Delirium:** Characterized by agitated state; constant motion; usually displaying non-purposeful, repetitive movements and most often involving unfocused verbalizations.

3.3 **Hypoactive Delirium:** Characterized by an inactive, withdrawn and sluggish state with slowed down motor and verbal responses.

***Note:*** Throughout this document patient, resident, person will be identified as client.

## 4. STANDARDS

4.1 All persons who seem "confused" will be assessed for delirium (see Appendix I for Delirium Screening Tool) on admission or when there is a sudden change in behaviour.

4.2 When a person displays symptoms of delirium, the attending physician will be notified so that appropriate laboratory and physical examinations and pharmacological interventions can occur to determine cause(s) and approaches for delirium. (See Appendix II Physician's Directives for Delirium in the Older Adult)

4.3 The interdisciplinary team will develop a care plan which will facilitate the return of the client to their pre-delirious state, e.g. ADL functioning, mobility, sleep pattern.

4.4 Regular review of medications by pharmacist will be completed to ensure appropriateness of medications.

4.5 The client and support persons will be informed of the cause of the change in behaviour and expected course of resolution to the delirium.

## 5. GUIDELINES

5.1 **ASSESSMENT:** On admission and when there is a sudden change in behaviours.

5.1.1 ***History of Contributing Factors to Delirium:***

- Age - over 75 years
- Previous episodes of delirium
- Recent and chronic infections
- Nutritional state
- Weight changes
- Vital signs, O2 saturations
- Pain: chronic and acute
- Metabolic status: e.g. diabetes, Thyroid
- Electrolyte and fluid imbalance
- Medication review: recent changes in prescribed medications, use of over-the-counter herbals and medications
- Alcohol and/or drug misuse (CAGE)
- Cardiopulmonary diseases (CHF, COPD)
- Gait and balance; falling episodes
- Change in ADL and IADL functions
- Dementia: phase of disease, onset date
- Neoplasms
- Neurological disturbances - previous CVA, trauma
- Recent surgeries
- Constipation/diarrhea
- Incontinence (bowel/bladder)
- Sleep pattern
- Sensory impairment
- Collateral data of recent or sudden behavioural changes

5.1.2 ***Observation***

- Observe for indicators that may contribute to delirium. (Refer to Appendix I - Delirium Screening Tool)
- Ask the client, family or support persons to describe normal behaviours and why they think there is a change in behaviour.
- Complete screening tool.
- Assess for suicidality if indicated by observations such as depressive symptoms with impulsiveness, disinhibition, statements of harming self.

## 6. INTERVENTIONS

6.1 **Preventative Measures**

6.1.1 Maintain hydration and nutritional level without compromising medical condition e.g. CHF, renal failure. It is generally

recommended that the elderly receive 1500 cc's of fluid within 24 hours.

6.1.2 Monitor lab and diagnostic results, p.r.n.: electrolytes, CBC, chemistry screen, glucose, urinalysis, x-rays.

6.1.3 Provide adequate and consistent pain management.

6.1.4 Encourage mobility, sitting up in chair, ambulation and maintenance of ADLs.

6.1.5 Promote regular bowel and bladder hygiene and regular toileting.

6.1.6 Ensure eyeglasses, hearing aids and dentures are functional and in use.

6.1.7 Review medication use and appropriateness with pharmacist (e.g. Pharma Net).

6.1.8 Provide calm and safe environment which may include personal and recognizable items from home.

6.1.9 Give simple, direct directions and information.

6.1.10 Encourage family and support persons to participate in caring for the client. Provide education pamphlet on Delirium (Appendix III).

## 6.2 **Treatment Measures**

### 6.2.1 Related to Underlying Cause

6.2.1.1 The interdisciplinary team will consult with each other to develop a care plan to address the contributing factors to delirium. These may include all of the preventative measures and:

- O2 sats; 30$^{o}$ position in bed
- Metabolic balancing (e.g. thyroid, glucose, B12, Ca+, albumin, total proteins)
- Altered activity level
- Interpersonal difficulties

6.2.1.2 Consult with physician to discuss assessment data and options for care, such as:

- Antibiotic treatment for infection
- Correction of fluids & electrolytes
- Physician's Directives for Pharmacological Approaches (Appendix II)

6.2.1.3 Bowel and Bladder Hygiene. If in **residential care** refer to CPG on Bowel Care and Maintenance of Continence. If in **acute care**, refer to Bowel Protocol and CPG for Continence.

6.2.2 Normalization of Sleep Pattern and Behaviours

6.2.2.1 Promote night-time sleep between midnight and 0600 hrs. If needed, refer to Physician Directive to assist with normalizing sleep pattern.

6.2.2.2 Plan **short** rest periods during the day.

6.2.2.3 Implement sleep promotion measures such as warm milk, warm blanket, toileting, snack, active listening.

6.2.2.4 Pain management: Regularly scheduled analgesics with p.r.n. for breakthrough. If in **residential care** refer to Chronic Pain CPG. If in **acute care** consider referral to Pain Management Team (RCH) or Pain Management in Older Adult in Hospital CPG.

6.2.2.5 Implement Least Restraint Standard and Fall Prevention principles.(See Clinical Decision-Making Guide)

6.2.2.6 If in **residential care**, implement Agitation and Excessive Behaviours (see Residential Care CPGs). If in **acute care** refer to Standards/Protocols for Challenging Behaviours, One:One Constant Observation to help identify behaviours and guide appropriate interventions.

6.2.2.7 Intersperse focused activities during day with familiar persons, e.g., family, support persons, restorative care volunteers, Occupational Therapy group.

6.2.2.8 Acknowledge and validate fears related to changes in cognition.

6.2.2.9 **Only if Necessary:** To normalize sleep-wake cycle, collaborate with physician and pharmacist, to administer a short acting anxiolytic/hypnotic until the behaviours are resolved and the underlying conditions are stable. Refer to Pharmacological Approaches to Delirium.

### 6.2.3 Pharmacological Principles

6.2.3.1 Review medication profile for recent changes in medications, adverse effects, toxicity, drug interactions. Include Pharmanet search.

6.2.3.2 Start low and go slow when introducing any medications, especially psychotropic medications.

6.2.3.3 More than one concurrent psychotropic medication being used, is to be reviewed by pharmacist.

6.2.3.4 Psychotropic medication response is to be reassessed after each administration for effectiveness.

6.2.3.5 Immediately report a side effect of any psychotropic medication:.

- Anxiolytic/hypnotic (e.g. paradoxical effect)
- Antidepressant (e.g. serotonin syndrome)
- Antipsychotic/neuroleptic (e.g. extrapyramidal symptoms, malignant neuroleptic syndrome)

6.2.3.6 Psychotropic medications may be effective in maintaining the normal sleep/wake cycle when given initially as regular dose.

6.2.3.7 Generally, no anxiolytic /hypnotic should be administered after 0100 hrs.

6.2.3.8 For persons with Parkinson's, Lewy Body Dementia, seizure disorders, consult with pharmacist before giving anti-psychotic medication.

6.2.3.9 Antipsychotic medications are usually effective in treating physically excessive behaviours; less effective to treat verbally excessive behaviour and are **not** appropriate for emotional behaviours.

6.2.3.10 Refer to Appendix IV for behaviours that respond or do not respond to medications.

6.2.4 Measures to Promote Supportive Environment

6.2.4.1 Keep environment simple and clutter free.

6.2.4.2 Provide adequate lighting and exposure to daylight when awake. May need lighting at night if the client appears fearful of dark.

6.2.4.3 Provide quiet, low stimulation sleeping environment with enough lighting to assist with orientation.

6.2.4.4 Place client's familiar and personal objects near by. ***NB:*** Soft touch call bell.

6.2.4.5 Promote normal ADL daily routines (e.g. dress in street clothes, sit up at a table for meals).

6.2.4.6 Refer to least restraint and fall prevention measures.

6.2.4.7 Encourage family and supportive persons to participate in care plan.

## 7. DOCUMENTATION

7.1 Complete Delirium Screening Tool on admission and when there is a sudden change in behaviour. In Progress Record/Nurses Notes record delirium screen completed.

7.2 Lab Data/ Diagnostics
- Results of diagnostic tests in appropriate location.
- Report abnormal results to physician as needed and record on lab/diagnostics results.

7.3 Progress Record or Nurses Notes or Deliriun Screening Variance Record
- Record when physician was contacted and response to reported behaviours.
- Record target behaviours and treatment plan
- Responses to treatments including medications.

7.4 Care Plan(Kardex)/ADL/Delirium Screening Tool Variance Record
- Identify as focus of care, (delirium, sleep-wake cycle reversal).
- Interventions (least restraint, sleep and nap schedule) and evaluation date.

7.5 MAR
- Correctly record medication, times, doses.

## 8. CLIENT EDUCATION

8.1 Inform client and support persons of possible/confirmed causes of change of behaviour.

8.2 Inform client and support persons of normal course of condition.

8.3 Ensure staff are aware of person's altered condition.

8.4 Encourage support persons to be with client during noted agitated periods.

8.5 Encourage visitors to promote fluid intake.

8.6 Assist family and visitors to implement supportive measures e.g. regular visits, how to approach client.

8.7 Share information sheet with client and support persons: Patient and Family Education: Delirium: Sudden Confusion in the Elderly (Appendix B)

## 9. EVALUATION

Standard Review once a year.

## 10. REFERENCES


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# CLINICAL DECISION MAKING GUIDE

| PROBLEM | WHY? | CAUSES | WHAT CAN BE DONE |
|---|---|---|---|

**Agitation/ restlessness (e.g. delirium, dementia, depression, delusions)**

**Physiological Factors**

- constipation
- impaction

→
- check for and treat impaction
- monitor bowel movement pattern
- establish bowel/bladder program
- regular toileting

- urinary retention

→
- assess for retention
- post void residual
- treat impaction if present
- medication review

- untreated/ undertreated pain

→
- pain assessment and monitoring
- regular position changes
- <u>regularly</u> administered analgesia
- OT/PT consult

**Medication:**
- medication side effects/interaction
- polypharmacy (especially if > 5)

→
- medication review
- determine recent drug regimen changes
- assess for abnormal serum levels
- assess need for low dose antipsychotics
- obtain alcohol use history

**Abnormal Blood Work:**
- dehydration
- malnutrition
- hypoxemia
- electrolyte imbalance
- hypo/ hyperglycemia

**Cardiovascular Insufficiency:**
- Pulse <60 >100 ↑ ↓ BP
- postural ↓ BP SOB
- nocturnal hypoxia
- myocardial infarction

**Infections:**
- respiratory
- urinary

**Neuro:**
- T.I.A., C.V.A.

→
- maintain fluid intake/1500 cc at least per 24 hrs
- request dietary consult, high caloric snacks
- determine $O_2$ needs, pulse oximeter
- monitor lab values ($B_{12}$, thyroxin, electrolytes, glucose, hgb, albumin)
- assess history of infections or recent falls
- assess clinical signs of infection
- adequate positioning
- monitor vital signs and compare to baseline
- if catheter present, assess need for same
- alert physician

**Psychological Factors**

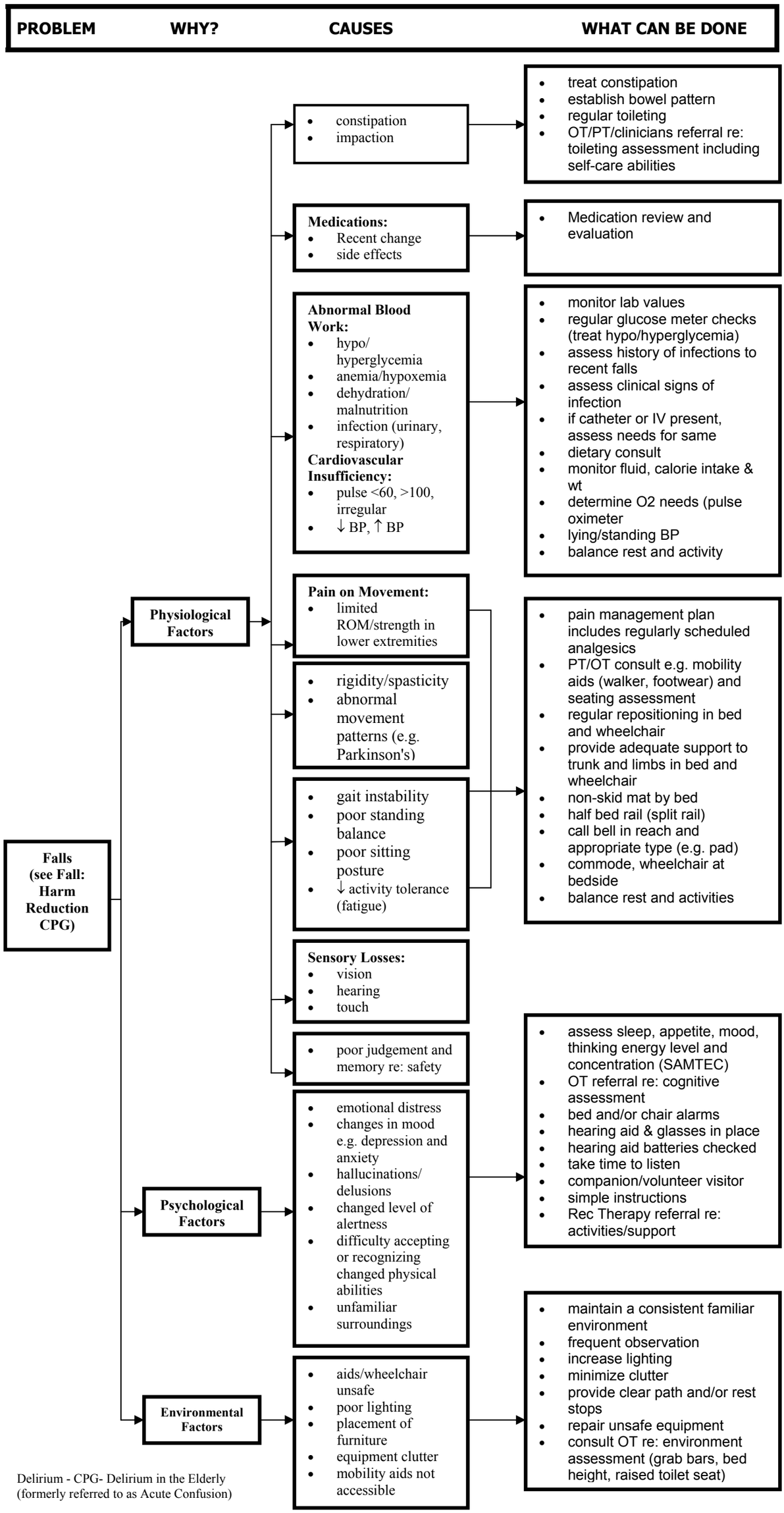
- recent losses
- cognitive changes and/or impairment

→
- OT consult re: cognitive assessment
- simple instructions
- cueing, active listening
- provide reassurance
- pace activities slowly, mobilize regularly with scheduled rest periods
- monitor sleep, appetite mood, energy level, and concentration (SAMTEC)
- see Delirium and Depression CPG

**Environmental Factors**

- understimulation
- overstimulation
- unfamiliar environment/ relocation
- sensory impairment
- recent losses

→
- ↑ or ↓ stimuli
- have hearing aid and glasses in place and working
- maintain a consistent, familiar environment (clothing, belongings, calendar (family involvement)
- alter noise level


PROBLEM
WHY?
CAUSES
WHAT CAN BE DONE
Falls (see Fall: Harm Reduction CPG)
Physiological Factors
Psychological Factors
Environmental Factors
constipation
impaction
treat constipation
establish bowel pattern
regular toileting
OT/PT/clinicians referral re: toileting assessment including self-care abilities
Medications:
Recent change
side effects
Medication review and evaluation
Abnormal Blood Work:
hypo/ hyperglycemia
anemia/hypoxemia
dehydration/ malnutrition
infection (urinary, respiratory)
Cardiovascular Insufficiency:
pulse <60, >100, irregular
↓ BP, ↑ BP
monitor lab values
regular glucose meter checks (treat hypo/hyperglycemia)
assess history of infections to recent falls
assess clinical signs of infection
if catheter or IV present, assess needs for same
dietary consult
monitor fluid, calorie intake & wt
determine O2 needs (pulse oximeter
lying/standing BP
balance rest and activity
Pain on Movement:
limited ROM/strength in lower extremities
rigidity/spasticity
abnormal movement patterns (e.g. Parkinson's)
gait instability
poor standing balance
poor sitting posture
↓ activity tolerance (fatigue)
pain management plan includes regularly scheduled analgesics
PT/OT consult e.g. mobility aids (walker, footwear) and seating assessment
regular repositioning in bed and wheelchair
provide adequate support to trunk and limbs in bed and wheelchair
non-skid mat by bed
half bed rail (split rail)
call bell in reach and appropriate type (e.g. pad)
commode, wheelchair at bedside
balance rest and activities
Sensory Losses:
vision
hearing
touch
poor judgement and memory re: safety
emotional distress
changes in mood e.g. depression and anxiety
hallucinations/ delusions
changed level of alertness
difficulty accepting or recognizing changed physical abilities
unfamiliar surroundings
assess sleep, appetite, mood, thinking energy level and concentration (SAMTEC)
OT referral re: cognitive assessment
bed and/or chair alarms
hearing aid & glasses in place
hearing aid batteries checked
take time to listen
companion/volunteer visitor
simple instructions
Rec Therapy referral re: activities/support
aids/wheelchair unsafe
poor lighting
placement of furniture
equipment clutter
mobility aids not accessible
maintain a consistent familiar environment
frequent observation
increase lighting
minimize clutter
provide clear path and/or rest stops
repair unsafe equipment
consult OT re: environment assessment (grab bars, bed height, raised toilet seat)