

# RECOGNIZING DELIRIUM, DEPRESSION AND DEMENTIA (3D's)

Residents may have more than 1D present at the same time and symptoms may overlap.

	DELIRIUM	DEPRESSION	DEMENTIA
<b>DEFINITION</b>	Delirium is a medical emergency which is characterized by an acute and fluctuating onset of confusion, disturbances in attention, disorganized thinking and/or decline in level of consciousness.  Delirium cannot be accounted for by a preexisting dementia; however, can co-exist with dementia.	Depression is a term used when a cluster of depressive symptoms (as identified on the SIG E CAPS depression criteria) is present on most days, for most of the time, for at least 2 weeks and when the symptoms are of such intensity that they are out of the ordinary for that individual.  Depression is a biologically based illness that affects a person's thoughts, feelings, behaviour, and even physical health.	Dementia is a gradual and progressive decline in mental processing ability that affects short-term memory, communication, language, judgment, reasoning, and abstract thinking.  Dementia eventually affects long-term memory and the ability to perform familiar tasks. Sometimes there are changes in mood and behaviour.
<b>ONSET</b>	■ Sudden Onset: Hours to days	■ Recent unexplained changes in mood that persist for at least 2 weeks.	■ Gradual deterioration over months to years
<b>COURSE</b>	■ Often reversible with treatment ■ Often fluctuates over 24 hour period and often worse at night	■ Usually reversible with treatment ■ Often worse in the morning	■ Slow, chronic progression, and irreversible
<b>THINKING</b>	■ Fluctuations in alertness, cognition, perceptions, thinking	■ Reduced memory, concentration and thinking, low self-esteem	■ Cognitive decline with problems in memory plus one or more of the following: aphasia, apraxia, agnosia, and/or executive functioning.
<b>PSYCHOTIC FEATURE</b>	■ Misperceptions and illusions	■ Delusions of poverty, guilt, somatic symptoms	■ Signs may include delusions of theft/persecution and/or hallucinations depending on type of dementia.
<b>SLEEP</b>	■ Disturbed but with no set pattern. Differs night to night	■ Disturbed ■ Early morning awakening or hypersomnia	■ May be disturbed with an individual pattern occurring most nights
<b>MOOD</b>	■ Fluctuations in emotions – outbursts, anger, crying, fearful	■ Depressed mood ■ Diminished interest or pleasure ■ Changes in appetite (over or under eating) ■ Possible suicidal ideation/plan; hopelessness	■ Depressed mood especially in early dementia ■ Prevalence of depression may increase in dementia; however, apathy is a more common symptom and may be confused with depression.
<b>PSYCHO-MOTOR ACTIVITIES</b>	■ Hyperactive delirium: agitation, restlessness, hallucinations ■ Hypoactive delirium: unarousable, very sleepy ■ Mixed delirium: combination of hyperactive and hypoactive manifestations	■ Hyperactive: agitated depression ■ Hypoactive: withdrawn, decreased motivation/interest	■ Wandering/exit seeking <i>or</i> ■ Agitated <i>or</i> ■ Withdrawn (may be related to co-existing depression).
<b>SCREENING TOOLS</b>	■ <b>Confusion Assessment Method (CAM) – An algorithm used to screen for delirium:</b> Screen for delirium is positive if the person has features 1 & 2 plus either 3 or 4 as listed below. <ol style="list-style-type: none"> <li>(1) Presence of acute onset and fluctuating course AND</li> <li>(2) Inattention AND EITHER</li> <li>(3) Disorganized thinking OR</li> <li>(4) Altered level of consciousness</li> </ol> Assess for causes: ■ <b>I WATCH DEATH</b> [Infections, Withdrawal, Acute metabolic, Toxins, drugs, CNS pathology, Hypoxia, Deficiencies, Endocrine, Acute vascular, Trauma, Heavy metals]	■ <b>Geriatric Depression Scale (GDS)</b> Interpretation of the 15 Question GDS Screen: $\leq 4$ = Indicates absence of significant depression 5-7 = Indicates borderline depression $> 7$ = Indicates probable depression  ■ <b>Cornell Scale for Depression</b> Interpretation of Score: 1.4 = No psychiatric diagnosis 4.8 = Non-depressive psychiatric disorder 12.3 = Probable major depressive disorder 24.8 = Major depressive disorder  ■ <b>SIG E CAPS (DSM-IV Criteria)</b> Interpretation of Score: $\geq 5$ = Indicates probable depression  ■ <b>Assessment of Suicide Risk in the Older Adult</b> (critical if depression is present and/or history of depression)	■ <b>Mini Mental Status Exam (Folstein) measures cognitive functioning</b> Interpretation of Score: 25-30 = normal 20-24 = mild 10-20 = moderate $< 10$ = severe cognitive impairment  ■ <b>Clock Drawing Test (CDT)</b>  ■ <b>Mini-Cog Dementia Screen</b> Interpretation of Score: 0 to 2 = high likelihood of cognitive impairment 3 to 5 = low likelihood of cognitive impairment  ■ <b>If behavioural issues, consider using Cohen-Mansfield Agitation Inventory (CMAI)</b>

# RECOGNIZING DELIRIUM, DEPRESSION AND DEMENTIA (3D's)

Residents may have more than 1D present at the same time and symptoms may overlap.

	DELIRIUM	DEPRESSION	DEMENTIA
<b>LABORATORY TESTS</b>	Delirium workup includes the following tests: <ul style="list-style-type: none"> <li>■ Hgb, WBC, Na, K, Ca, O<sub>2</sub> sats, Blood gases, Urea, Creatinine, Liver function tests, Chest X-ray, Urinalysis and Culture, Alcohol/drug/toxicology screen</li> </ul>	Depression workup includes the following tests: <ul style="list-style-type: none"> <li>■ TSH, B12, folate, Ca, Albumin, FBS, Ferritin, Iron, Hgb, K, ESR</li> </ul>	Dementia workup includes the following tests: <ul style="list-style-type: none"> <li>■ CBC, TSH, Blood glucose, Electrolytes, including Ca</li> </ul>
<b>DSM-IV CRITERIA</b>	Diagnostic Criteria: A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain or shift attention. B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established or evolving dementia. C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day. D. There is evidence from the history, physical examination or laboratory findings that the disturbance is caused by the direct physiological consequences of a general medical condition.	Diagnostic Criteria: Five (or more) of the following symptoms have been present during the same two-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure. 1. depressed mood most of the day, nearly every day 2. marked diminished interest or pleasure in normal activities 3. significant weight loss or gain 4. insomnia or hypersomnia nearly every day 5. psychomotor agitation or retardation nearly every day 6. fatigue or loss of energy nearly every day 7. feelings of worthlessness or excessive guilt 8. diminished ability to think or concentrate, or indecisiveness 9. recurrent thought of death or suicidal thoughts/actions	Diagnostic Criteria: A. The development of multiple cognitive deficits manifested by both 1. memory impairment (impaired ability to learn new information or to recall previously learned information). 2. one (or more) of the following cognitive disturbances: a) aphasia (language disturbance) b) apraxia (impaired ability to carry out motor activities despite intact motor function) c) agnosia (failure to recognize or identify objects despite intact sensory function) d) disturbance in executive functioning (e.g., planning, organizing, sequencing, abstracting) B. The cognitive deficits in the above criteria (Criteria A1 and A2) each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
<b>NEXT STEPS</b>	Notify: <ul style="list-style-type: none"> <li>■ Attending Physician ASAP (consider delirium as a medical emergency and may require transfer to an Emergency Department)</li> </ul> Involve: <ul style="list-style-type: none"> <li>■ Internal team members including Psychogeriatric Resource Person (PRP) [PIECES trained staff]</li> <li>■ Family members</li> </ul>	Refer to: <ul style="list-style-type: none"> <li>■ Attending Physician and if suicidal risk consider transfer to Emergency Department</li> <li>■ Geriatric Mental Health Outreach Team</li> <li>■ Psychogeriatric Resource Consultant (PRC)</li> </ul> Involve: <ul style="list-style-type: none"> <li>■ Internal team members including Psychogeriatric Resource Person (PRP) [PIECES trained staff]</li> <li>■ Family members</li> </ul>	Refer to: <ul style="list-style-type: none"> <li>■ Attending Physician</li> <li>■ Geriatric Mental Health Outreach Team</li> <li>■ Psychogeriatric Resource Consultant (PRC)</li> </ul> Involve: <ul style="list-style-type: none"> <li>■ Internal team members including Psychogeriatric Resource Person (PRP) [PIECES trained staff]</li> <li>■ Family members</li> </ul>
<b>NOTE</b>	For issues of violence or abuse, follow LTCH protocols.		

## Glossary of Terms

<b>DELUSIONS</b>	<ul style="list-style-type: none"> <li>■ False belief not shared by one's culture</li> <li>■ Incorrect beliefs not based on reality</li> </ul>
<b>HALLUCINATIONS</b>	■ A sensory experience without any real world stimulus, may be visual, auditory, tactile, gustatory or olfactory
<b>ILLUSIONS</b>	■ Misperception of real stimuli
<b>PSYCHOMOTOR AGITATION</b>	■ Pacing and physical restlessness, hyperactive behaviour
<b>PSYCHOMOTOR RETARDATION</b>	■ Physical slowing of speech, movement and thinking, hypoactive behaviour

### References:

- American Psychiatric Association (2000). Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision.
- PIECES Consultation Team (2005-2006). Putting the PIECES Together. Fifth Edition.
- Registered Nurses' Association of Ontario (2003). *Screening for Delirium, Dementia and Depression in Older Adults*. Toronto, Canada: Registered Nurses' Association of Ontario.
- Vancouver Island Health Authority (2006). The 3Ds. Comparison of Depression, Delirium, and Dementia.

Adapted from:  
 Ontario Psychogeriatric Association (OPGA) (2005).  
 Basics of the 3Ds.

Developed by:  
 Toronto Region Best Practice in LTC Initiative  
 January 2007