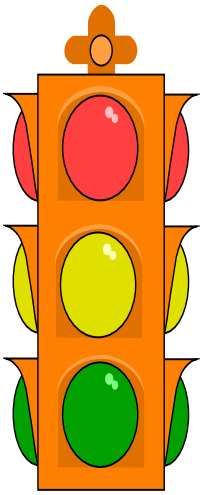
Promoting Patient Safety at TOH

Delirium:

Look... Screen... Intervene!

A Self-Directed Resource Guide



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Delirium Best Practices Work Group

Table of Content

The Delirium Best-Practices Work Group wish to thank Deer Lodge Centre for their self study package on Delirium, Depression and Dementia and The Cornwall Community Hospital for their continued work in this area. The Work Group further acknowledges the Registered Nurses Association of Ontario (RNAO) Best Practice Guidelines Committee and others who have supported this evidence-informed program.

Introduction

Delirium, also referred to as an "acute confusional state", is a serious clinical syndrome. It is associated with mortality rates of 25-33% and increased lengths of hospital stay (McCusker, Cole, Dendrukuri & Belizile, 2003). Studies have shown that it is under recognized by health care workers. People who have experienced a delirium have described it as like being in "the twilight zone", a "fog bank" or in a state of "constant terror". Patients often retain bad memories about this experience.

Delirium can be an indicator of severe illness and have a grave prognosis. It is often the first sign of an impending illness. It is associated with a higher risk of complications such as urinary incontinence, falls and pressure ulcers. It is a predictor of:

- Morbidity
- Mortality
- Cognitive decline (although many patients do recover their cognitive function completely, some never do return to their previous level)
- Functional decline
- Longer hospital stays with higher associated costs
- Nursing home placements

(*RNAO BPG DDD, 2003; 2004)*

We invite you to test your own knowledge of delirium by completing the quiz on page 40.

Using this self-directed package will help you to:

Chapter 1

Highlights

of

Best Practices

Chapter 1: Best Practices

Nurses and the health care team have a responsibility to "screen for delirium, dementia and depression … and, further, to provide individualized care strategies to meet their needs…" (RNAO Care Strategies for DDD 2004. p. 26). The literature supports that under-recognition of delirium can adversely affect outcomes such as mortality, morbidity, length of stay and may result in premature admission to long term care. Early assessment and the communication of the findings accompanied by appropriate interventions will assist the health care team in promoting best practices in patient care.

This self-directed study is a *brief* review of assessment and care strategies for delirium and does not represent all of the interventions that may be possible.

DDD = Delirium, Dementia and Depression

Highlights of Delirium Best Practices

- **Maintain a high index of suspicion for recognition, prevention, & urgent treatment of delirium**
- **Differentiate between delirium, dementia & depression**
- **Use a standardized assessment & screening tool**
- **Use a decision tree to guide practice**
- **Identify risk factors & common causes of delirium**
- **Target the 'root causes' for prevention strategies**
- **Communicate assessments in a standardized format**
- **Implement multiple care strategies simultaneously**
- **Restraints are *not* recommended**
- **Monitor & evaluate**
- **Educate staff**

APA Delirium (1999); RNAO Screening for DDD (2003); RNAO Care Strategies for DDD (2004).

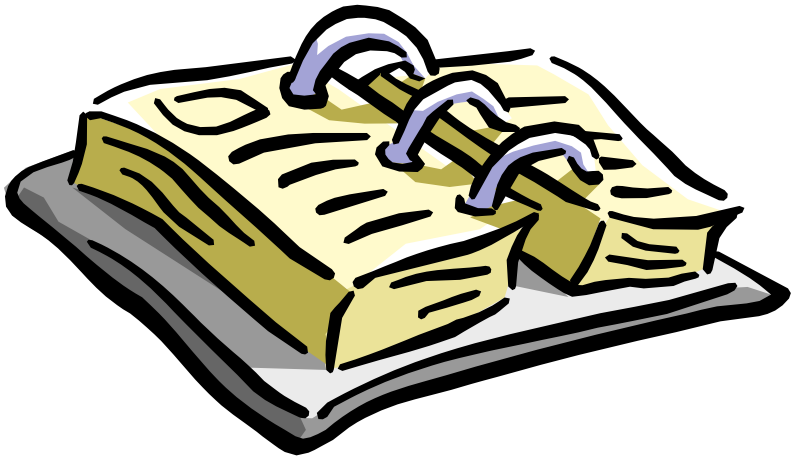
Significance of Delirium

Multiple literature sources cite the significance of delirium in the healthcare continuum as an adverse event. It is considered a safety issue in hospitals as well as within the community. The ability to recognize the symptoms and to provide interventions in a preventative or timely manner is seen as a healthcare provider's responsibility.

Highlights from the literature:

- 10-18% of admissions to acute care have a delirium on admission
  - 10-42% of patients develop a delirium during their admission
- Seen in 10-85% of post-surgical patients
  - 28-61% of older age hip fracture patients develop a delirium
  - 20% of discharges post hip fracture still demonstrated evidence of delirium
- Associated with poor outcomes
  - Length of stay (LOS) doubled in presence of delirium
  - Mortality increased 3-5 times
  - May be an indicator for future development of dementia

Edlund, Lundstrom, Karlsson, et al, 2006; Screening for DDD (2003); RNAO Care Strategies for DDD (2004).



Chapter 2

Differentiating the DDD's, Types of Delirium

Chapter 2: Differentiating Delirium, Dementia & Depression

Delirium is often difficult to differentiate from dementia and depression and in fact all three may co-exist.

Differences include:

Feature	Delirium/Acute Confusion	Dementia	Depression
Onset	Acute / sub acute	Chronic, insidious	Variable, may appear abrupt
Course	Short, fluctuating, often worse @ night	Long, progressive, yet stable loss over time	Diurnal effects, typically worse in the morning
Progression	Abrupt	Slow but even decline	Variable, rapid-slow
Duration	Hours to $\leq$ 1 month, may last longer in seniors	Months to years	At least 2 weeks, but can be several months to years
Awareness	Reduced	Clear	Clear
Alertness	Fluctuates; lethargic or hyper-vigilant	Generally normal	Normal
Attention	Impaired; unfocused, fluctuates, distracted	Generally normal, varies with extent of disease	Minimal impairment but distractible
Orientation	Impaired; fluctuates in severity	↑ Impairment over time	Selectively intact, "I don't know"
Memory	Recent and immediate impaired	Recent and remote impaired	Selective or patchy impairment, "islands" of intact memory
Thinking	Disorganized, distorted, fragmented, rambling, incoherent	Difficulty with abstraction, thoughts impoverished, judgments poor	Intact but with themes of hopelessness, helplessness or self-deprecation
Delusions	Common	Sometimes	Rare
Perception-Hallucination	Distorted; visual, tactile, olfactory	Uncommon	Rare, hallucinations absent except in severe cases (psychosis)

Adapted from: New Zealand Guidelines Group (1998). Guideline for the Support and Management of People with Dementia

Warning! Warning! Warning!

Four Key Components of Delirium

1. Disturbance of consciousness
2. Change in cognition
3. Acute onset and fluctuating course
4. Caused by consequences of a medical condition, substance intoxication, substance withdrawal, or by multiple etiologies.

1. **Disturbance of consciousness.** A cardinal feature of delirium is marked contrasts in levels of awareness/alertness manifested by difficulty maintaining or shifting attention and focusing concentration. One of the most important and clear distinctions between dementia and delirium is that dementia occurs in the presence of a normal level of consciousness and is usually not noted as an abrupt change in mental status.

2. **A change in cognition.**
   - memory deficit
   - disorientation
   - language disturbance
   - development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia

   → Disordered thinking may occur with or without frank psychotic symptoms.

   → Hallucinations and illusions occur in 40% of cases. Hallucinations are usually visual, but auditory and tactile hallucinations can also occur. Respond to patient's fear & reassure.

3. **Acute onset and fluctuating course.** The disturbance develops over a short period (usually hours to days), and tends to fluctuate during the course of the day. Behaviours such as drowsiness, hypervigilence, lucidity, and agitation may all occur within a short period of time. Sleep-wake cycle disturbances and "sundowning" or increased agitation in late afternoon and early evening may also occur.

4. **There is evidence from the history, physical examination, or laboratory findings that the disturbance is caused by**:
   - General medical conditions
   - Substance intoxication
   - Substance withdrawal
   - Multiple etiologies (more than one medical condition or combined effects of a medical condition and substance use/withdrawal) *(DSM – IV, p. 129- 133).*

Clinical Subtypes

<u>There are three clinical subtypes of delirium</u>:

1. **Hyperactive Delirium (increased psychomotor activity**). This type is easy to recognize because it is characterized by:

   - an agitated state
   - increased psychomotor activity
   - non-purposeful, repetitive movement
   - verbal behaviours (shouting or calling out frequently)

2. **Hypoactive Delirium (decreased psychomotor activity).** This is more common in elderly patients, but is <u>less frequently recognized or is often dismissed as a transient, insignificant problem</u>. Frequently the plight of these patients goes unnoticed by staff because of the absence of disruptive, injurious behaviours. These patients present as:

   - quietly confused
   - some anxiety
   - lethargic, withdrawn and difficult to arouse
   - slow, limited speech

3. **Mixed delirium** is characterized by the patient fluctuating unpredictably between hypoactive and hyperactive delirium.

(DSM IV-TR 2000; Lipowski, 1983; RNAO Best Practices; Caregiving for DDD's, 2004)

<u>Manifestations of delirium may also include</u>:

Behavioural symptoms

- fear, irritability and combativeness
- attempts to escape one's environment
- removal of medical equipment (IV lines, catheters)
- depression or euphoria
- acute sensitivity to light and sound

Functional symptoms

- incontinence
- falls (may be first cue that a delirium has developed)

Autonomic symptoms

- hypertension
- tachycardia

Chapter 3

"LOOK"

Baseline Function, Risk Factors, & Medication Alert

Chapter 3:

Risk Factors & Causes

There are numerous risk factors and causes for the development of delirium and, in fact, causes of delirium may be multifactorial, involving both **patient vulnerability** and the **number and severity of insults**. The risk of delirium increases with the number of risk factors present. If a patient is at risk of delirium he/she should be assessed on admission or whenever the nurse notices an abrupt change in mental status. The most common risk factors are as follows:

Predisposing Risk Factors (Patient vulnerability)

- Severe illness, co morbidities. *
- Cognitive impairment (cognitively impaired patients, previous episode(s) of delirium & those with dementia may be at a higher risk of developing delirium)**.** *
- Sensory impairment, (e.g. vision or hearing impairment, head injury). *
- Serum urea nitrogen / creatinine ratio of ≥ 18. *
- Increasing age is associated with increased risk. Older patients have less functional reserve and therefore do not tolerate physiologic insults as well as younger patients.
- History of alcohol and/ or substance abuse
- Postoperative surgery; orthopedics and post hip fracture repair are particularly high risk.
- Depression
- Poor pre-morbid functional status

***noted to have been highly predictive of a delirium**

(Inouye et al, 1993; Inouye, S. & Charpentier, 1996; Marcantonio, Duthie & Resnick 2002)

Precipitating Factors (hospital-related factors)

- Metabolic/electrolyte imbalances, dehydration (e.g. ↑ BUN/creatinine ratio, changes in Na^{+}, K^{+}, Ca^{++}, Vitamin B12, blood glucose)
- Malnutrition (albumin ≤ 30g/L)
- Surgery
- Infections (e.g. UTI, upper respiratory infections, etc.)
- Polypharmacy (5 or more) or new medications
- Sleep alterations
- Immobilization (e.g. bed rest, restraints, catheters)
- Unfamiliar environment
- Sensory overload
- Room without windows

***** LOOK for changes and think of trigger questions…**
LOOK for changes from previous level of functioning, behaviour, mental status and, in general, the baseline health of the client.

***** LOOK for changes & note when they occurred…**
Document

Here are some examples of potential causes or risk factors for a delirium.

Examples of Risk Factors
Pain, Physiological instability
Restraints
Infections, Immobility
Sensory deficits (vision, hearing); Sleep alterations
Medications (≥ 5 meds); Metabolic disturbances / deficiencies
Environment; Elimination (retention, constipation)

(Adapted from Vancouver General Hospital, 1999)

1. Delirium occurs in the presence of a normal level of consciousness. True or false?
2. Three sub-types of delirium are Hypo, Hyper and Mixed. True or False?
3. Manifestations of delirium may include behavioural symptoms, functional symptoms, and_____.
4. Infections acquired in hospital can lead to a delirium.

(Adapted from Deer Lodge Centre, 1999)

Self-test answers: 1. False; 2. True; 3. Autonomic symptoms; 4.True.

Review of Medications that Contribute to Delirium in Older Adults

Categories of Drugs that Can Cause Acute Changes in "Mental Status"

Mnemonic: Drug Category	Examples of Drugs
Antiparkinsonian drugs	Trihexyphenidyl, Benztropine, Bromocriptine, Levodopa, Selegiline (deprenyl)
Corticosteroids	Prednisolone
Urinary incontinence drugs	Oxybutinin (Ditropan), Flavoxate (Urispas)
Theophylline	Theophylline
Emptying drugs (motility drugs)	Metoclopramide (Reglan)
Cardiovascular drugs (including anti-hypertensives)	Digoxin, Quinidine, Methyldopa, Reserpine, B-Blockers (Propranolol –to a less extent), Diuretics, ACE inhibitors (Captopril & Enalapril), Calcium channel antagonists (Nifedipine, Verapamil, Diltiazem)
H2 blockers	Cimetidine (uncommon on it's own but ↑risk with renal impairment), Ranitidine
Antibiotics	Cephalosporins, Penicillin, Quinolones
NSAIDS	Indomethacin, Ibuprofen, Naproxen, as well as * includes salicylate compounds
Geropsychiatry drugs	1. *Tricyclic antidepressants* (e.g. Amitriptyline, Desipramine, Imipramine, Nortriptyline) 2. *SSRIs*- safer but watch if hyponatremia present. 3. *Benzodiazepin*es (e.g. diazepam) 4. *Antipsychotics* (e.g. Haldol, Chlorpromazine, Risperidone
ENT drugs	Antihistamines / decongestants / cough syrups in over-the-counter preparations
Insomnia	Nitrazepam, Flurazepam, Diazepam, Temazepam
Narcotics	Meperidine, Pentazocine
Muscle relaxants	Cyclobenzaprine (Flexeril), Methocarbamol (Robaxin)
Seizure drugs	Phenytoin, Primidone

Adapted from: Flaherty, J. H. (1998). Commonly prescribed and over-the counter medications: Causes of confusion. Clinics in Geriatric Medicine, 14(1) 101-125.

(Used with permission from The Registered Nursing Association: Care Strategies for Delirium, Dementia, Depression in Older Adults, 2004)

** This table lists only **some** examples of possible medications that can contribute to a delirium.

Therefore: "Watch and Beware"

Chapter 4

"SCREEN"

Screening Tools, Trigger Questions, MMSE, CAM, Pre-Printed Physician Orders

Chapter 4: TOH Screening Assessment /Tools

SUGGESTIONS INCLUDE:

1. Review baseline level of functioning and note any changes to this.

- Use the Pocket Resource Hand card for Delirium for review of the Trigger Questions.
- Document changes.
- Communicate to the team.
- Use term "acute confusion", "delirium" or "CAM +"; to try to be more specific. (i.e. avoid use of the term "confused")
- Note all behaviour changes.
- Review all pre-admission medications; look for recent changes in medications.

Cognitive testing is an important step in the diagnostic work-up. Evidence suggests that the systematic use of standardized screening tools to assist in the detection of delirium is effective at early identification and therefore helps in the choice of appropriate individualized interventions.

2. Review Mental Status.

2 a) Mini Mental State Examination (MMSE) (Folstein et al, 1975)

The MMSE is a practical assessment of cognitive impairment. A baseline MMSE is recommended to be done on admission. Serial testing to detect fluctuations should be done on individuals who:

- show abnormality upon admission
- are at high risk for developing delirium
- develop symptoms of delirium

Scores **below 24 / 30** are considered indicative of cognitive impairment. It is important to recognize that **the MMSE does not reliably distinguish between dementia** (chronic cognitive impairment) **& delirium** (acute cognitive impairment), and does not establish the diagnosis of delirium. However, in the presence of delirium, the MMSE score typically fluctuates significantly over time.

2 b) MoCA – Montreal Cognitive Assessment www.mocatest.org

3. Review Delirium Presence

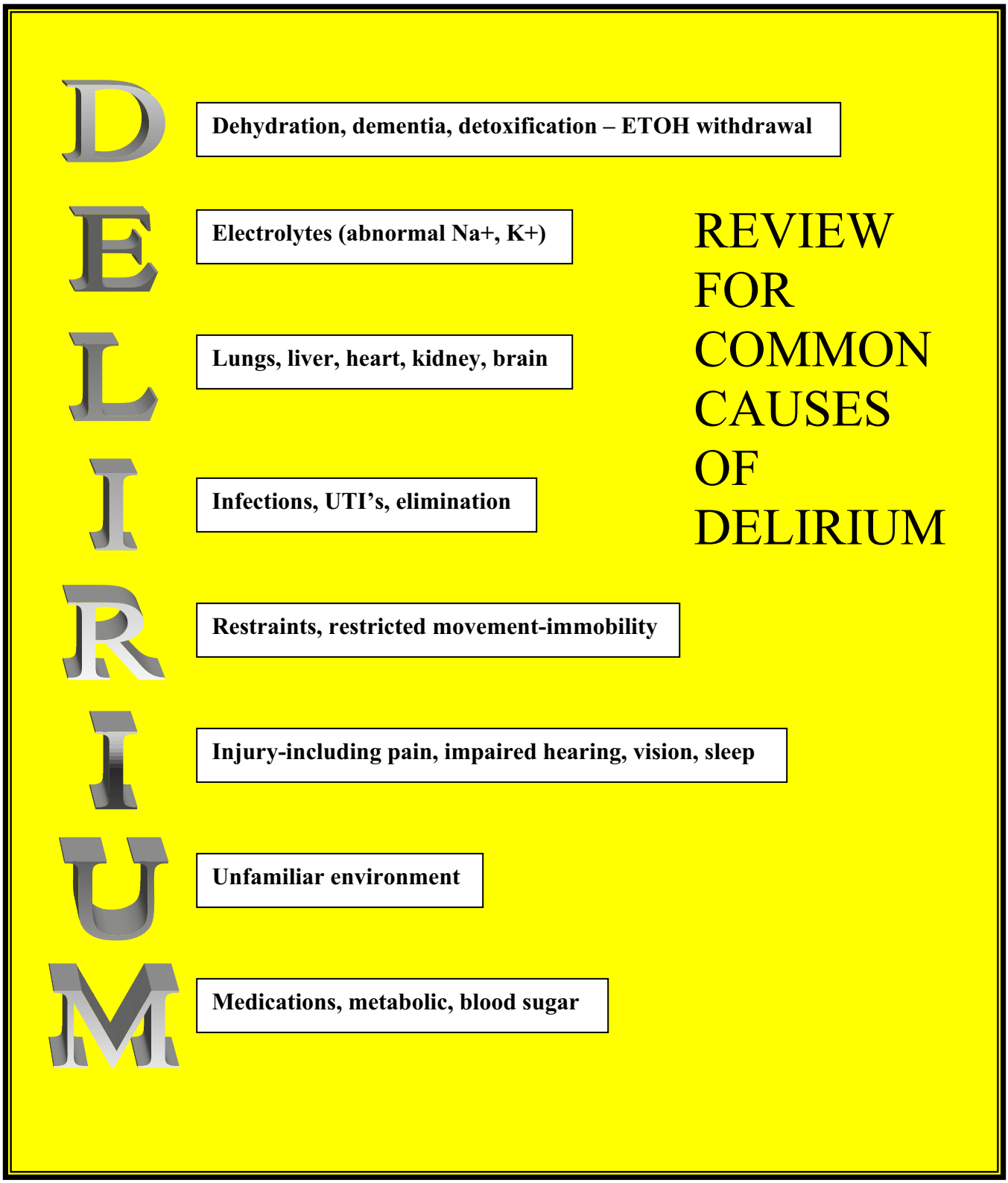
Confusion Assessment Method (CAM) (Inouye et al, 1990)

The CAM is one of the most common screening tools for delirium. It does not rate the severity of a delirium but rather the presence. Use when *answers to the trigger questions indicate the possibility of a delirium* and place on the chart. TOH has called this the **Delirium Risk Factor Alert**. Any health care professional who has been taught the standardized method of administration can screen using the CAM. The CAM focuses on the following components of delirium:

- inattention
- acute onset
- fluctuating course
- disorganized thinking
- altered level of consciousness

4. Pre-Printed Orders for Delirium- available if a unit wishes to use.

Screen and Review the Underlying Etiology for Delirium



Adapted from Inouye, S.(1993). Delirium in Hospitalized Elderly Patients: Recognition, Evaluation, and Management. Connecticut Medicine. 57(5):312

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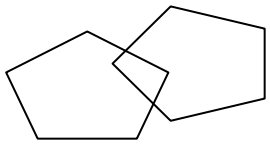
FOLSTEIN MINI-MENTAL STATE QUESTIONNAIRE
ÉVALUATION DE L'ÉTAT MENTAL FOLSTEIN

❑ Civic Campus ❑ General Campus

ORIENTATION	SCORE POINTAGE	ORIENTATION
What is the YEAR, SEASON, DATE, DAY, MONTH?	/5	Quel est l'ANNÉE, SAISON, DATE, JOUR, MOIS
Where are we? PROVINCE, COUNTRY, TOWN, HOSPITAL, FLOOR	/5	Où sommes-nous? PROVINCE, PAYS, VILLE, HÔPITAL, ÉTAGE
REGISTRATION Name 3 objects: BALL CHAIR HOME Take 1 second to say each. Then ask the patient all 3 after you have said them. Give 1 point for each correct answer. Then repeat them until he learns all 3. Count trials and record.	/3	**ENREGISTREMENT** Nommer 3 objets: BALLE CHAISE MAISON Prendre 1 seconde pour nommer chacun des mots. Demandez au patient de répéter les 3 objets. Donnez 1 point pour chaque bonne réponse. Répétez les 3 objets jusqu'à ce que le patient les sache. Comptez le nombre d'erreur et l'indiquer.
ATTENTION/CALCULATION Subtract by 7: 93 86 79 72 65 give 1 point for each correct. Stop after 5 answers. Alternatively spell WORLD backwards.	/5	**ATTENTION /CALCUL** Soustraire par 7: 93 86 79 72 65 donnez 1 point pour chaque bonne réponse. Alternativement épeler le mot MONDE en sens inverse.
RECALL Ask for the 3 objects repeated above. Give 1 point for each correct answer.	/3	**RÉTENTION** Demandez de répéter les 3 noms d'objets cités antérieurement. Donnez 1 point pour chaque bonne réponse
LANGUAGE Name a PENCIL and WATCH (2 points). Repeat the following: NO IFS, ANDS OR BUTS (1 point) Follow a 3 stage command: Take a paper in your right hand, fold it in half, and put it on the floor (3 points) Read and obey the following: CLOSE YOUR EYES Write a sentence (1 point). Copy design (1 point) Assess level of consciousness along a continuum: ❑ alert ❑ drowsy ❑ stupor ❑ coma	/9	**LANGAGE** Nommez un CRAYON et une MONTRE-BRACELET (2 points). Répétez PAS DE SI NI DE MAIS (1 point). Exécutez les consignes suivantes: Prenez un papier dans votre main droite, pliez-le en deux et posez-le sur le plancher (3 points). Lire et obéir à cette consigne: FERMEZ LES YEUX Écrivez une phrase (1 point). Recopiez le dessin (1 point) Évaluez l'état de conscience du patient: ❑ alerte ❑ somnolence ❑ stupeur ❑ coma
TOTAL /30		
DATE SIGNATURE		

GER 02 (04/2004)

Standardized Scoring Mini Mental State Examination Assessment Tool

Task	Instructions	Scoring	
Date Orientation	"Tell me the date"	One point each for year, season, date, day of week, and month	5
Place Orientation	"Where are you?"	One point each for province, city, town, building, and floor or room	5
Register three objects	Name three objects slowly and clearly. Ask the patient to repeat them.	One point for each item correctly repeated	3
Serial Sevens	Ask the patient to count backwards from 100 by 7. Stop after 5 answers Ask them to spell "world" backwards only if they refuse to count, have had very little education.	One point for each correct answer (or letter)	5
Recall three objects	Ask the patient to recall the objects mentioned above.	One point for each item correctly remembered	3
Naming	Point to your watch and ask the patient "what is this?" Repeat with a pencil.	One point for each correct answer	2
Repeating a phrase	Ask the patient to say, "no ifs, ands or buts"	One point if succesful on first try	1
Verbal commands	Give the patient a plain piece of paper and say "Take this paper in your right hand, fold it in half, and put it on the floor."	One point for each correct action	3
Written commands	Show the patient a piece of paper with "CLOSE YOUR EYES" printed on it.	One point if the patient's eyes close	1
Writing	Ask the patient to write a sentence.	One point if sentence has a subject, a verb, and makes sense	1
Drawing	Ask the patient to copy a pair of intersecting pentagons onto a piece of paper. 	One point if the figure has ten corners and two intersecting lines.	1
Scoring	**A score of 24 or above is considered normal.**		**30**

Adapted from Folstein et al, Mini Mental State, Journal of Psychiatric Research, Vol. 12, 1975, pp. 196-198.

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❑ Civic ❑ General

DELIRIUM RISK FACTOR ALERT
AVIS DE FACTEUR DE RISQUE DE DELERIUM

Please be advised your patient has been identified as displaying some/all of the symptoms for Delirium.

Veuillez prendre note que votre patient a été identifié démontrant certain/tous les symptômes du délire.

Confusion Assessment Method (CAM)-Méthode diagnostique de delirium

Must have (1) & (2) plus either (3) or (4) to score (+) ✔ Tick off symptoms observed
Diagnostic de delirium : critères nos 1 et 2, plus critère no 3 ou no 4 ✔ Veuillez cocher les symptômes observés

❑ **1 Abrupt onset**
Is there evidence of an acute change in mental status from baseline?

❑ **2 Inattention**
a Did the patient have difficulty focusing attention? Easily distractable? Can't keep track of what was said?
b (if present or abnormal) did this fluctuate during the interview? ie. Tend to come and go?
c (if present or abnormal) Please describe behaviour.

❑ **3 Disorganized Thinking**
Was the patient's thinking disorganized or incoherent, such as rambling, irrelevant, unclear or illogical flow of ideas, unpredictable switching of topics?

❑ **4 Altered Level of Consciousness**
Overall how would you rate the level of consciousness?
❑ alert
❑ vigilant (hyperalert) overly sensitive to stimuli? Startles easily?
❑ lethargic (drowsy, easily aroused)
❑ stupor ❑ coma ❑ uncertain

❑ **Disorientation**
Was the patient disoriented?

❑ **Memory Impairment**
Demonstration of memory problems: can't remember instructions, events since admission etc

❑ **Perceptual Disturbances**
Evidence of disturbances: hallucinations? illusions?

❑ **Psychomotor Changes**
❑ **Agitation:** restlessness? picking @ clothes?
❑ **Retardation:** ↓ motor activity?

❑ **Altered sleep-wake cycle**
Disturbance of routines? Excessive daytime sleepiness with insomnia @ night?

❑ **1 Changement soudain de l'état mental**
Un changement important de l'état mental par rapport à l'état de base est-il perceptible?

❑ **2 Inattention**
a Le patient éprouve-t-il de la difficulté à demeurer concentré? Est-il facilement distrait? Se souvient-il de ce qui a été dit?
b (En cas d'anomalie) Ce comportement a-t-il fluctué pendant l'entretien, se manifeste-t-il par intermittence?
c (En cas d'anomalie) Veuillez décrire le comportement.

❑ **3 Pensée désorganisée**
La pensée du patient est-elle incohérente et désorganisée? Sa conversation est-elle décousue, illogique, hors de propos, embrouillée? Change-t-il abruptement de sujets?

❑ **4 Altération de l'état de conscience**
Comment décrivez-vous son état de conscience?
❑ alerte
❑ irascible (hyperalerte), il réagit exagérément aux stimulus, il sursaute.
❑ léthargique (somnolent, mais facile à réveiller)
❑ stuporeux ❑ comateux ❑ hésitant

❑ **Désorientation**
Le patient est-il désorienté?

❑ **Altération de la mémoire**
Manifeste des troubles de mémoire, ne peut se souvenir de directives ou de ce qui s'est passé depuis son admission.

❑ **Troubles de la perception**
Hallucinations, illusions?

❑ **Anomalies psychomotrices**
❑ **Agitation:** nerveux, joue avec ses vêtements?
❑ **Ralentissement:** réduction de l'activité motrice?

❑ **Altération du cycle éveil-sommeil**
Perturbation du rythme circadien? Dort de façon excessive le jour et souffre d'insomnie la nuit?

Signature: Date:

GER 15 (04/2004) TRIAL-ESSAI CHART-DOSSIER

Instructions for the Confusion Assessment Method (CAM):

The Confusion Assessment Method Instrument (CAM)

Instructions:

If you are the primary care provider, you may have the necessary data to complete the CAM as a result of the usual assessment and interactions completed during daily care. Other members of the team may wish to complete some formal cognitive testing, for example, the MMSE, (Folstein, Folstein & Mc Hugh, 1975) prior to completing the CAM, as a way of structuring an interaction for completing the assessment. Please answer the following questions based on what you observed during the interaction with the patient. For questions 2 through 8, please note if there was any fluctuation in the behaviour, that is, did the behaviour tend to come and go or increase and decrease in severity? For questions 1 and 9, you may need to review the chart to supplement your assessment.

	Yes	No
1. Acute Onset Is there evidence of an acute change in the mental status from the patient's baseline?	___	___
2. Inattention Did the patient have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said?	___	___
3. Disorganized Thinking Was the patient's thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?	___	___
4. Altered Level of Consciousness a) Overall, how would you rate this patient's level of consciousness? ☐ alert (normal) ☐ stupor (difficult to arouse) ☐ vigilant (hyperalert, overly sensitive to environmental stimuli) ☐ coma (unarousable) ☐ lethargic (drowsy, easily aroused) ☐ uncertain		
b) (If other than alert) did this behaviour fluctuate during the interview?	___	___
5. Disorientation Was the patient disorientated at any time during the interview, such as thinking that he or she was somewhere other than the hospital, using the wrong bed or misjudging the time of day?	___	___
6. Memory Impairment Did the patient demonstrate any memory problems during the interview, such as inability to remember events in the hospital or difficulty remembering instructions?	___	___
7. Perceptual Disturbances Did the patient have any evidence of perceptual disturbances, for example, hallucinations, illusions, or misinterpretations (such as thinking something was moving when it was not)?	___	___
8. Psychomotor Agitation a) Did the patient have an unusually increased level of motor activity, such as restlessness, picking at bedclothes, tapping fingers, or making frequent sudden changes of position?	___	___
Psychomotor Retardation b) Did the patient have an unusually decreased level of motor activity, such as sluggish, staring into space, staying in one position for a long time or moving very slowly?	___	___
9. Altered Sleep-Wake Cycle Did the patient have evidence of disturbance of the sleep-wake cycle, such as excessive daytime sleepiness with insomnia at night?	___	___

SCORING: Consider delirium if feature 1 and 2 are present, and either 3 or 4 (anything other than normal) are present.

Adapted from: Inouye S.K., Van Dyck, C.H., Alessi, C.A., Balkin, Siegal, A.P., & Horwitz, R.I., (1990) Clarifying Confusion: The Confusion Assessment Method. A new method for detection of delirium. Annals of Internal Medicine 113, 941-8. (The American College of Physicians - American Society of Internal Medicine is not responsible for accuracy of the translation.)

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❑ Civic
❑ General

PHYSICIAN'S ORDERS
ORDONNANCES MÉDICALES
Delirium-Délirium

Medication **Allergies/Reactions**	**Substances or Food Allergies/Reactions**
❑ none known-aucune connue	❑ none known-aucune connue

RN-IA	RPN-IAA ACC-CCA	
		Select if not ordered within previous 24 hours:
		❑ CBC
		❑ Electrolytes, glucose, BUN
		❑ Calcium
		❑ Albumin
		❑ Creatinine
		❑ Urinalysis
		❑ Urine for C&S
		As required:
		❑ Oxygen saturation
		❑ ECG
		❑ Arterial blood gases
		❑ Blood cultures if indicated or T >38.5 ^{0}C
		❑ Serum levels of medications (specify):
		❑ Chest x-ray
		Consult and complete requisition:
		❑ Geriatrics
		❑ Pharmacy (for medication review)
		❑ Medicine
		❑ Psychiatry
		❑ Neurology

Date:	Time-Heure:	Physician's-Médecin printed-imprimé:	Signature:
Date (noted-notée):	Time-Heure:	Processed by-Traitée par:	Signature (Nurse-Infirmière):

SPO 98 (09/2006) 1-CHART-DOSSIER 2-PHARMACY-PHARMACIE

Chapter 5

"INTERVENE !"

Multiple Interventions, Target Root Causes

Chapter 5:

CARE STRATEGIES

Causes of delirium are often multifactorial. Patient vulnerability due to increasing age and / or poor health status plus hospital-related procedures or treatments may contribute to the development of delirium. Therefore there is unlikely to be one single intervention. Health care professionals should implement multiple interventions to target the root causes of delirium.

Review the unit posters. Pocket resource hand cards are available from your Clinical Manager/Nurse Educator and Printing.

Principles of Pharmacological Management (if needed.)

- Use a SINGLE medication (rather than two) to decrease the potential for side effects/drug interactions.
- Start with lowest dose.
- Order regularly scheduled doses of analgesia (around the clock) with PRN for breakthrough pain.
- Choose drugs with lowest anti-cholinergic activity.
- Try to discontinue medications as soon as possible.
- Focusing on correcting underlying cause rather than just treating symptoms.
- Continue to use non-pharmacological interventions.

Conclusion

In the elderly, delirium may be the first sign of an impending illness. An organized, systematic approach with an emphasis on prevention, early diagnosis and effective management is of the greatest importance for a positive outcome. Think of delirium as nature's wake-up call to draw your attention to a serious health threat.

5. Two of the most common risk factors for the development of delirium are '*old age'* and 'multiple medications'. True or False?
6. What assessment tool identifies geriatric patients at risk for developing delirium?
7. The MMSE reliably distinguishes between dementia and delirium. True or False?
8. In the elderly delirium may be the first sign of an impending illness. True or False?
9. Does the CAM include a question about disorganized thinking, including rambling, irrelevant conversation or illogical flow of ideas?

Adapted from Deer Lodge Centre, 1999
Self-test answers: 5. True;6. CAM; 7. False;8. True; 9. Yes

Possible Root Causes of Delirium & Interventions

Possible Root Causes	Interventions to consider

Physiological Instability	• Recognize the symptoms
	• Consult physicians & team
	• Determine the cause with a thorough assessment
	• Treat the underlying cause, for example:
	  ➢ monitor fluid & electrolyte balance (I & O)
	  ➢ provide adequate fluids & nutrition (eg. Albumin, hydration)
	  ➢ offer dietary supplements to support nutrition
	  ➢ monitor & maintain normal blood glucose levels, oxygenation (Sats)
	  ➢ assess vital signs & pain
	  ➢ intervene for pain. In older adults analgesics given on a regular interval is more effective
	  ➢ identify & treat infections promptly (e.g. send C & S)
	• Optimum management of all medical conditions
	• Avoid caffeine where appropriate
	• Review elimination patterns (e.g. constipation?)

Functional Changes from Baseline	• Review previous level of functioning • Maintain / improve ambulation; limit immobility. Physical activity should be initiated as soon as possible to minimize the risks of immobility (e.g. pressure sores) • Ambulate 3x/day when possible • Consult team (eg PT/OT, APN Geriatrics, Geriatric Nurse Specialist) • Prevent deconditioning as much as possible. Provide activity (eg. walk to bathroom, do not push on commode, walk in room, walk with PT) • Provide regular toileting – optimize continence • Reposition frequently if mobility limited • **Avoid restraints** (e.g. review potential causes) • Offer eye glasses and hearing aids • Encourage ADL independence (e.g. set up wash basin while up in chair) • Encourage patients to be involved in, and in control of, as much of their care as possible • Limit choices to avoid overwhelming the person.
↓ Sensory Impairment / Communication	• Encourage use of glasses / hearing aids • Use large telephone dials • Use appropriate lighting • Use night lights • Assess for ear wax; remove when necessary • Use portable hearing amplifiers (on-unit “pocket talkers”) • Consult specialists when appropriate • Reduce extraneous noise when possible • Introduce yourself each time you contact patient
Cognitive Impairment / Communication	• Review previous level of cognition • Consult to team / OT / Specialists • Provide consistent daily schedule & staffing as much as possible • Use short, simple sentences; provide 1 step instructions • Speak slowly and clearly, re-focus patient if necessary • Don’t shout; use low pitched voice • Maintain a positive, caring attitude • Use gentle, slow movements; don’t act rushed

Possible Root Causes of Delirium & Interventions

Possible Root Causes	Interventions to consider
Cognitive Impairment	• Provide frequent, gentle reorientation to place, date, time, & staff members • Ask family / familiar people to sit with patient or visit on a regular basis • Complete the MMSE & leave on the chart as appropriate
Environmental	• Limit noise levels -- keep environment calm and quiet • Use adequate, soft light. Turn on at dusk in winter or on cloudy days • Create hazard free environment • Use clocks and calendars to help orient patient • Bring items from home when possible • Avoid room changes as much as possible • Provide a room with a window if possible • Use music to relax (patient's preference) • Establish a consistent routine with consistent caregivers • Repeat information as necessary • Remove unfamiliar equipment
Excessive Behaviours e.g. • **Attention Deficits** • **Wandering** • **Verbal Outbursts**	• Restraints are ***not*** recommended as a first line of intervention • Determine what triggers and improves disruptive behaviour; develop care plan that incorporates this information. • Prevent the patient from harming self or others • Use diversion to help avert disruptive behaviour (avoid confrontation, use constant re-orientation) • Divide activities into small steps to avoid overwhelming • Ensure food / hydration available • Remove patient from situation and reintroduce activity later (e.g. bath) • Put on safe wandering program • Encourage safe activity to reduce stress • Increase observation, supervision • Move patient closer to nursing station • Approach from the front; keep your hands in view at all times • Begin care by asking patient to hold something (e.g. washcloth)
Pharmacological	• Review medications taken prior to admission • Compare to recent medication list • Assess newly added medications; • Start low & go slow! • Reduce non-essential medications where possible ➢ ↓ use of sleeping aids ➢ try warm drinks, position change, family presence, listening time • Review medications that can increase a delirium (see list page 12) ➢ Do not use psychotropic medications as a first line treatment ➢ Remember, these medications can worsen delirium or cause other severe problems. • Consult with pharmacy, medicine and specialists as appropriate • Treat pain

Inouye ,S., Bogardus, S., Charpentier, P., et al. (1999); Inouye, S., Borgardus, S., Baker, D., Leo-Summers, L. et al (2000); Lever, J. & Rossy, D. (2004); Milisen, K., Foreman, M., Abraham, I., De Greest, S. et al (2001); Naughton, B., Saltzman, S., Ramadan F., Chadra. Et al (2005); RNAO, Screening for DDD's, (2003); RNAO, Caregiving for DDD's, (2004)

Chapter 6 Policy & Procedure, Decision Tree

SOURCE:	Delirium Best Practice Task Group **Level of Evidence**-Level II	**DATE ISSUED:**	2007-03
		DATE IMPLEMENTATION:	2007-06
		DATE REVISED:	
APPROVED BY:	(VP Professional Practice, and Chief Nursing Executive)		

POLICY STATEMENT:
The Registered Nurse and the Registered Practical Nurse will assess for and monitor the mental status of patients and report changes in mental status to the physician. The delirium policy will be implemented for patients at TOH who exhibit symptoms of delirium/acute confusion.

DEFINITIONS:
Delirium is "a temporary disordered mental state, characterized by an acute and sudden onset of cognitive impairment, disorientation, disturbances in attention and a decline in level of consciousness…" (RNAO 2003). A delirium is *potentially* reversible if treated promptly but can lead to permanent brain damage or death if untreated. Physicians diagnose delirium by meeting the Diagnostic and Statistical Manual of Mental Disorders- IV (DSM IV) criteria.
The Confusion Assessment Method (CAM) is one of the most common validated screening tool for delirium. It does not rate the severity of a delirium but rather the presence.
The Mini Mental State Exam (MMSE) is the most common validated standardized screening tool of cognitive functioning.

NURSING ALERTS:
Delirium is a cluster of fluctuating symptoms identified by changes in attention

Onset	Sudden, acute and abrupt
Course over 24 hours	Fluctuating, usually worse at night.
Consciousness	Reduced
Alertness	Increased, decreased or fluctuating
Psychomotor	Decreased or hyperactive, agitated behaviour, often mixed.
Duration	Hours to weeks
Attention	Fluctuating
Orientation	Usually impaired, fluctuates
Speech	Often incoherent, slow or rapid
Affect	Variable

a) Delirium poses a serious health risk, particularly in the elderly; early identification and treatment is essential.
b) Specialized assessments and screening is required to recognize delirium and possible etiology. Nursing surveillance along with ongoing nursing assessment is the key.
c) Avoid the use of restraints as a first line intervention for delirium.
d) There is rarely one underlying cause of delirium.
e) The Confusion Assessment Method (CAM) for the screening of delirium is contained in the Delirium Risk Factor Alert (Printing GER 15). Meeting a minimum of 3 out of 4 screening questions is considered a 'CAM positive' or the presence of delirium.

EQUIPMENT:

1. Nurses should refer to Resource hand cards:
   - Assessment of Delirium, Dementia and Depression (DDD's). This card describes the differences between the DDD's. (TOH Reprographics #GEN 58). Abbreviated version-Appendix 3.
   - Screening for Delirium (TOH Reprographics #GEN 57) - Appendix 2 This card is an overview of delirium including the definition, risk factors, screening tool and interventions.
2. Wall posters "Delirium: Look, Screen and Intervene". Large posters available to hang in hallways and helpful to staff and patients/family. (TOH Reprographics #GAU 35 E or GAU 35 F).
3. Delirium Risk Factor Alert (CAM): The Confusion Assessment Method (CAM) is a screening tool used to detect if the patient has delirium /acute confusion and provides a method to communicate with the team. This is available as a Risk Factor Alert form. TOH Reprographics #GER 15 (04/2004 trial). (Appendix 4).
4. Mini Mental State Exam (MMSE). A tool used to assess cognition. The nurse may request assistance from team members such as the Occupational Therapist, specialized geriatrics or physicians to review how to use this tool. (TOH Reprographics #GER 02 (04/2004)
5. Physician's Orders Delirium. A medical work up order sheet that may be used to help find the etiology/cause of delirium. (TOH printing SPO 98 - 04/2004 trial)

PROCEDURE:

Admission Assessment/ Screening for Delirium

1. Assess for delirium on admission or after an abrupt change in mental status using these questions (Appendix 4):
   Confusion Assessment Method (CAM) *Need presence of (1) & (2) & either (3) or (4)*
   1) Abrupt change in mental status from baseline?
   2) Inattention? Can't focus? Distracted?
   3) Incoherent? Rambling? Disorganized thinking?
   4) Altered consciousness? E.g. Hyper-alert to stupor?

   CAM Positive means that a Delirium should be suspected when features (1) and (2) and either (3) or (4) are present. Information is gathered from patient assessment /interview and from discussions with family caregivers, a review of the patient chart, as well as observations by the nurse.

   ∗ CAM questions may be incorporated on the new Nursing Flowsheets. If not, please use the Delirium Risk Factor Alert: TOH printing GER 15 (04/2004 trial) (Appendix 4).
2. Incorporate the Trigger Questions into the admission history where possible. The trigger questions guide nursing assessment. Nurses should follow the Decision Tree for all patients with an acute change in mental status. (See Appendix 1, 2 & 3).

   Review the trigger questions listed below on admission/daily assessment:
   - Acute changes in behaviour?
   - Changes in function?
   - Changes in cognition?
   - Changes in medications?
   - Physiologically unstable?
3. Notify the attending physician if patient is positive for delirium.
4. Place completed Delirium Risk Factor Alert (CAM) tool in the Integrated Progress Notes (IPN) section of chart if used. Ensure assessment completed in the flowsheets if used.

Assessing for Root Causes of Delirium

5. **Option**: Screen using the Mini Mental Status Exam (MMSE) as appropriate for baseline mental status assessment. See equipment section.
6. **Option**: Place the Delirium Work-up pre-printed physician order form called 'Physician's Orders: Delirium' (Printing # SPO 98 04/2004 trial) in the physician's order section of the chart when the patient is positive for delirium.
7. Assess for root cause(s) of the delirium using Appendix 2 as a guide (see Appendix 2). Delirium is considered an urgent medical condition requiring investigation.
8. Initiate multidisciplinary interventions, consults to target the root causes of delirium. (Appendix 2)
9. Provide information brochure *Delirium or 'Acute Confusion' A Guide for Caregivers* to patient, family or Substitute Decision Makers (TOH printing # P487).

Ongoing Assessment

10. Monitor & reassess the patient's response to the interventions.
11. Incorporate the trigger questions in daily assessment.
12. In addition, repeat the CAM using the Delirium Risk Factor Alert (CAM) tool in your daily assessment or when there has been an acute change in mental status.

DOCUMENTATION:

1. Document changes in mental status using the Delirium Risk Factor Alert (CAM) or on the nursing flowsheets (if used).
2. The Delirium Risk Factor Alert (CAM) should be placed in IPN section of the chart
3. Document the nursing assessment and interventions in IPN.
4. Note on the Kardex/ Patient Care Plan the planned multidisciplinary interventions
5. Document patient & family education regarding delirium on the flowsheet and/or IPN as required.
6. Document re-assessment of delirium and patient's response to the interventions.

PATIENT TEACHING:

Discuss with the patient, family and/or substitute decision maker (SDM) their concerns with changes of mental status/behaviour and provide information sheet on Delirium. Available from TOH Printing at P487 (10-2004).

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American Psychiatric Association (APA) (1999). *Practice guideline for the treatment of patients with delirium*. American Psychiatric Association [Online] www.psych.org/clin_re/pg_delirium.cfm

Canadian Coalition for Seniors' Mental Health. National Guidelines. (2006). *The Assessment and Treatment of Delirium.* Canadian Coalition for Seniors' Mental Health, Toronto. Canada. [Online] fmmalach@baycrest.org

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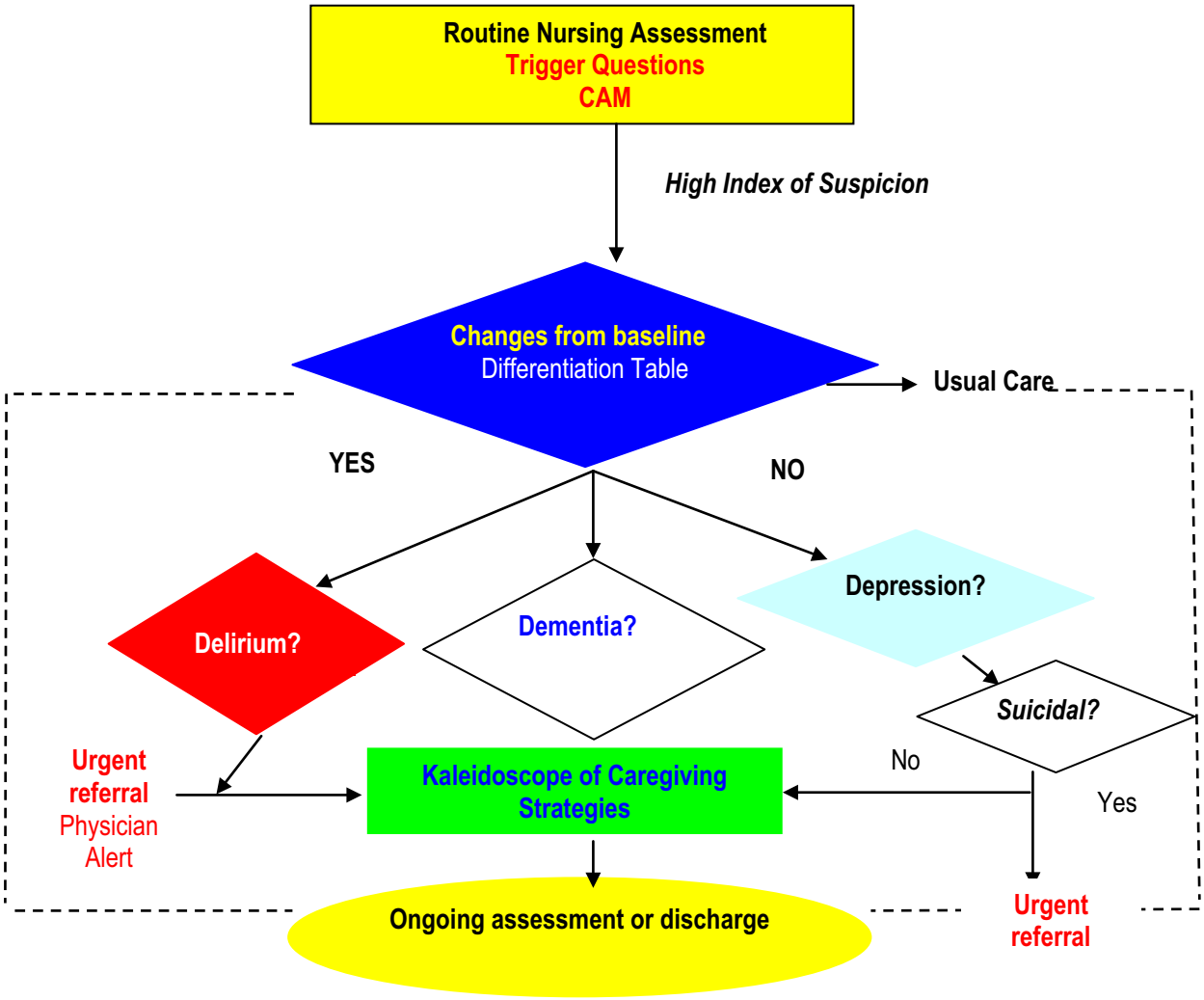
Appendix 1

Decision Tree for Delirium

The use of decision trees to guide practice has been recommended in many best practice guidelines and evidence-based programs (APA, 1999; RNAO, DDD, 2003; RNAO, DDD, 2004). While decision trees are useful, it is clinical practice and the ability of the care provider to differentiate delirium from dementia and depression using a systematic method that aids in early recognition and intervention.

Screening Assessment Diagram for Delirium



Adapted with permission from Registered Nursing Association of Ontario: Screening for Delirium, Dementia, Depression in Older Adults, 2003

Appendix 2

Screening for Delirium in Older Adults

Definition of Delirium

An acute disturbance in mental status with a fluctuating course demonstrated by a reduced awareness of the environment, ability to focus and/or pay attention and changes in cognition. Usually, the result of underlying physiological alterations.

1. awareness of environment; can't focus;
2. change in cognition: impaired memory, disorientation, hallucinations;
3. develops over short period of time and fluctuates during day

(DSM-IV-R)

Screen
CAM: Need presence of (1) & (2) & either (3) or (4)

1. **Abrupt change?**
2. **Inattention? Can't focus?**
3. **Incoherent? Rambling?**
4. **Altered consciousness? Eg. Hyper-alert to stupor**

Rule of Thumb:
Identify & reverse underlying etiology !!

Recognizing Delirium: Look for

Onset	Acute; abrupt
Course	Fluctuating, often worse @ night
Awareness	↓ perception of environment
Attention	↓ concentration, ↓ ability to focus
Hallucinations	Common
Memory	Impaired: ↓ recent & immediate
Thinking	Disorganized: rambling, illogical

** Look for:

- Changes in functioning
- Changes in behaviour
- Disturbances in sleep
- Hyper/hypo psychomotor activity
- Emotional disturbances: anxiety, fear, anger, apathy

Risk Factors for Delirium

- Severe illness
- Sensory impairment: Vision, hearing
- Older age
- Cognitive impairment: e.g. Dementia, CVA
- Dehydration
- Multiple medications
  - sedatives,
  - hypnotics,
  - narcotics
  - anticholinergics
  - psychotropic
- Alcohol/substance abuse
- Previous delirium
- Social isolation
- Infections
- Poor renal functioning

What Can you Do?

1. Consults to team
2. Administer CAM
3. Review risk factors
4. Identify changes from baseline
5. Follow P & P
6. Communicate concern: Use Delirium Work Up order form
7. Assess triggers eg: Medications
   Metabolic imbalance eg:
   Na, glucose, calcium
   dehydration, sats
   Infection
8. Assess pain control & meds eg: "around the clock" not prn
9. Offer glasses, aids, calendars
10. Mobilize
11. Avoid restraints
12. Toileting regime
13. Provide nutrition
14. Family @ bedside
15. Comfort & reassurance
16. Sleep measures: hot drink

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Appendix 3

Differences in Delirium, Dementia and/or Depression

	Delirium	Dementia	Depression
Onset	Acute, abrupt	Chronic, slow	Variable
Course	Short, fluctuating, often worse at night	Long, progressive yet stable over time	May change during the day & often worse in the morning
Attention Span	Impaired, unfocused, distracted	Generally normal	Normal. Minimal impairment yet distractable
Orientation	Impaired, fluctuates within short time frames	↑ disorientation over time. May develop after months to years	Selectively intact: "I don't know."
Sleep	Disturbed (may have hour to hour variations)	Stable (may have day/night reversals)	May be too much or too little
Level of Consciousness	Altered, fluctuating	Not clouded until end stages	Stable unless sleeping too much or too little
Thinking	Disorganized, distorted, rambling	Need concrete instructions, make poor judgments, ↓ problem-solving skills (e.g. banking, math).	Intact but with themes of hopelessness, helplessness.

Abbreviated version adapted with permission from:
D Rossy (2005). Kaleidoscope of Caregiving Strategies Resource Cards. GEN 58

Appendix 4 (CAM) Confusion Assessment Method (see Chapter 4)

Chapter 7

Fast Facts, Monitoring, Unit Prevalence, Tool, & Quiz

Chapter 7: Delirium Fast Facts and the TOH Program

Did you know that:

1. Under-recognition of the 3 D's is an issue:
   - 40% of pt's ≥ 70 yrs. presenting to Emergency have altered mental status:
     i. 25% delirium
     ii. 50% cognitive impairment
     iii. 25% altered level of consciousness. (American College of Emer. Physicians, 1999).
2. Delirium is misdiagnosed in 32%-67% of studies (Fann, 2000).
3. Delirium accounts for ↑ LOS. One Canadian study found 7.78 days. (McCusker et al, 2003).
4. Delirium may coexist with dementia & depression. Need to understand all "3D's". Review the patient's baseline functioning. ***Look***
5. Specific populations may be @ ↑ risk such as post hip fracture, emergent conditions, medicine (Inouye, 2000).
6. The treatment of delirium is to recognize it early using standardized assessment when possible. ***Screen***
7. Delirium is a medical emergency, usually resulting from potentially reversible causes.
8. Multi-component care strategies target the root causes ∴individualized to each patient. ***Intervene***
9. There are BPG's: www.rnao.org/bestpractices; www.psych.org/clin_re/pg_delirium.cfm

The Ottawa Hospital Delirium Program: "Delirium: Look, Screen & Intervene!"

DO THIS

Understand: The 3 D's

- Differentiate the 3 D's.
- Delirium is an *acute, abrupt* change in mental status with a fluctuating course secondary to potentially reversible causes.
- 3 Types of delirium: hyperactive, hypoactive, mixed.

Look:

- Review patients baseline functioning. Differences?
- Ask trigger questions.

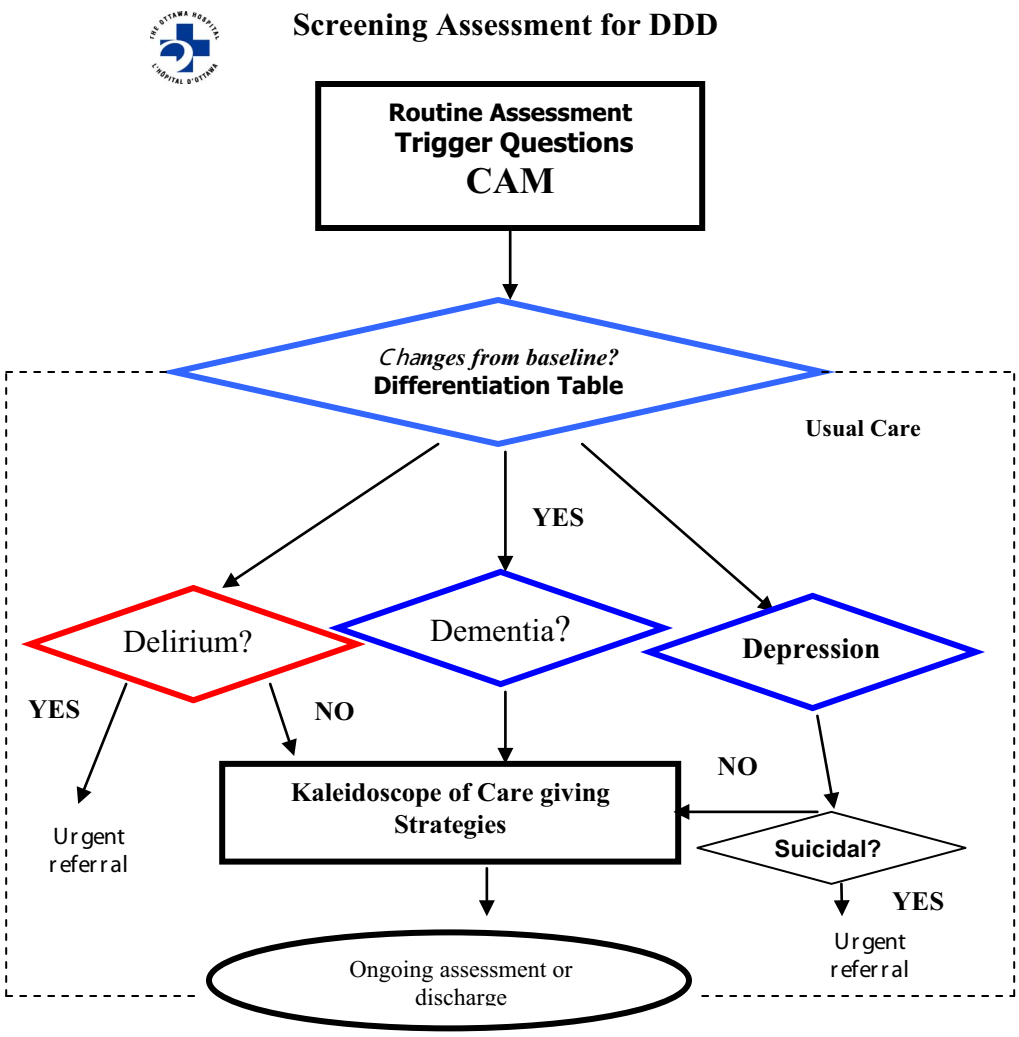
Screen:

- Screen for risk factors
- Try standardized screening tools; e.g. CAM, MMSE.

Intervene:

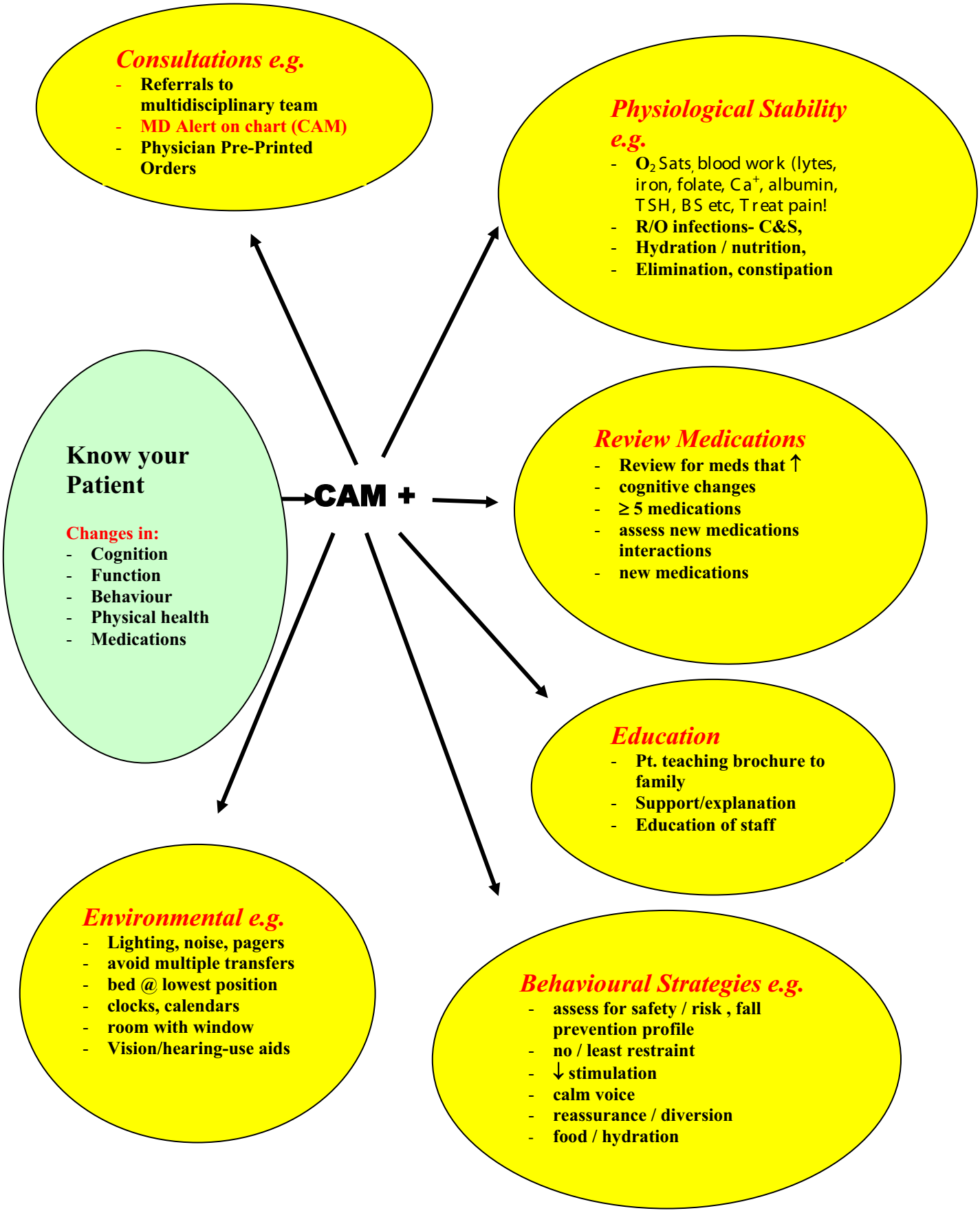
- Document concerns:
  - CAM on chart
  - Try pre-printed orders where appropriate
  - Use correct terminology: "Acute confusion" or "Delirium?"
- Initiate care strategies,
- Monitor, evaluate, reassess.
- Give family brochure: "Delirium or Acute Confusion. A Guide".

FOLLOW THIS



Adapted with permission from Registered Nursing Association of Ontario, (2003) Screening for Delirium, Dementia, Depression

Kaleidoscope of Caregiving Strategies for Delirium – Review



Delirium Evaluation DATA COLLECTION Tool

KEY	
+	Compliance
-	Non Compliance
N/A	Non Applicable

Data Collectors: _____ **Unit:**_____ **Date:**____/____/____ **Sample Size:**_____

INDICATORS: Unique #	1	2	3	4	5	6	7	8	9	10	Totals +	Totals -	Results
A. Complete on all patients											+	-	+ / + & - = %
1. Note the age of the patient													
2. Is there evidence of the term "confusion" Y, N													
3. Is the term 'delirium' documented? Y, N													
B. If yes to 2 or 3, continue													
4. Is the CAM on the chart? Y, N													
5. Is the 'Delirium Work up" physician order form on chart? (SPO 98) Y, N, N/A													
6. Is there evidence of interventions attempted once delirium has been identified? Y, N, N/A													
7. Is there evidence of appropriate referrals on CAM positive patients? Y, N, N/A													
8. Is there evidence of patient /family education guide provided? Y, N													
9. Is there evidence of monitoring for outcomes in chart? (e.g. patient less confused, X-ray neg, Urine negative, referrals to team) Y, N													
C. Unit Nursing Staff: interview													
10. Have you read the Delirium Self-Directed package? Y, N													
11. Have you completed the Delirium Quiz? Y, N													
12. Do you refer to the Delirium Pocket cards? Y, N, N/A													
Total Compliance													

Test your Knowledge: Recognizing Delirium

Name: _____ **Unit:** _____

Note: Each question has only one correct answer

1. If a patient is identified as being at high risk for developing delirium, his/her mental status should be assessed and documented:
   a. at least once every 24 hours
   b. twice a day for 48 hours
   c. at lease once every 8 hours for 48 hours
   d. on admission or whenever the nurse notices a change in mental status

2. An elderly patient has an acute onset of delirium, an elevated temperature, a history of UTIs and a recent fall at home. The most likely cause is:
   a. drug toxicity
   b. respiratory infection
   c. UTI
   d. GI problems

3. The following factors increase the risk of delirium:
   a. age 85 or older
   b. dementia
   c. poor functional status
   d. all of the above

4. A good strategy for preventing delirium in elderly hospitalized patients is:
   a. using restraints at night to make sure they remain rested and in bed
   b. making sure they walk or engage in range-of-motion exercises 3 times a day
   c. limiting their fluid intake during the latter part of the day
   d. making sure sedatives and antianxiety agents are prescribed for them

5. A strategy for keeping elderly patients with delirium or dementia, or both, comfortable and oriented is:
   a. keeping the lights on at night to prevent falls
   b. changing their room placement periodically to remind them that they are not at home
   c. keeping caregiver assignments as consistent as possible
   d. minimizing family visits to prevent disorientation about their whereabouts

6. A hospitalized elder with delirium tells you that a man is threatening her and will not leave. There is no one in the room but you and her. What is the best approach?
   a. telling her that there is no threatening man in the room.
   b. Reminding her that her medical condition will sometimes make her see things that aren't there
   c. Bringing several other staff members into the room to assure her that there is no threatening man in her room
   d. Respond to the patient's fear and reassure her that you will keep her safe

7. A key factor in differentiating delirium from depression and dementia is to consider the patient's:
   a. mood
   b. sleep pattern
   c. psychomotor activity
   d. rapidity of onset of symptoms

8. Using the Confusion Assessment Method (CAM), the diagnosis of delirium is likely in a patient who demonstrates:
    a. an acute onset, a fluctuating course, normal attention, disorganized thinking, and an altered level of consciousness
    b. an acute onset, a steady course, inattention, disorganized thinking, and an altered level of consciousness
    c. an acute onset, a fluctuating course, inattention, disorganized thinking and alertness
    d. an acute onset, a fluctuating course, inattention, disorganized thinking, and an altered level of consciousness

9. When assessing elderly patients for delirium, drug toxicity or an adverse drug reaction is most likely when the patient:
    a. is taking a short course of antibiotics
    b. takes 5 or more medications
    c. has a history of constipation
    d. takes supplemental thyroid hormone

10. A helpful technique for communicating with patients with delirium is to:
    a. speak gently & make all instructions as simple as possible
    b. avoid eye contact, because they may perceive it as a threat
    c. re-orientate with papers and examples because they can be very agitated
    d. speak loudly and clearly

11. Planning care of a patient with delirium should include:
    a. removing calendars from the patient's environment, because they can increase disorientation
    b. allowing family photos only if the patient can identify the people in them
    c. encouraging the patient to consistently use assistive devices like eyeglasses and hearing aids
    d. maximizing the patient's exposure to environmental sounds, such as alarms, to remind the patient that he or she is in the hospital and not at home

12. A helpful intervention for a patient with delirium and pain is to:
    a. administer scheduled or "around the clock" medications, rather than intermittent doses
    b. wake the patient often to offer PRN medications
    c. encourage the patient to tell you every time he/she is experiencing pain & to ring the bell
    d. place the patient's mattress on the floor

13. When a patient has been screened and identified with a possible delirium you can:
    a. place the *CAM Risk Factor Alert* on the chart
    b. place pre-printed physician's orders on the chart for review
    c. target interventions to the underlying root causes
    d. teach patient and family using the patient teaching handout
    e. all of the above

Answers to Delirium Quiz
LOOK, SCREEN & INTERVENE PROGRAM

Questions	Answer	Where to find the answer in the Self-Directed
1	D	Chapter 3 & 6
2	C	Chapter 3
3	D	Chapter 3
4	B	Chapter 5
5	C	Chapter 5
6	D	Chapter 2 & 5
7	D	Chapter 2 & 6
8	D	Chapter 4 & 6
9	B	Chapter 3
10	A	Chapter 5
11	C	Chapter 5
12	A	Chapter 5
13	E	Chapter 6

Quiz Answers with Rationales.

1. **Chapter 3, page 10; Chapter 6, page 27**
   d. The Policy & Procedure states that a patient's mental status should be assessed on admission and whenever a change is noticed. Knowing a patient's baseline cognitive status is key to recognizing that a change has occurred.

2. **Chapter 3, page 10**
   c. A UTI is often asymptomatic except for a new onset of falls and delirium.

3. **Chapter 3, page 10**
   d. Advanced age, pre-existing cognitive deficits and poor functional status have all been found to be factors associated with the development of delirium.

4. **Chapter 5, page 23**
   b. Encouraging mobility helps to improve strength and prevent the deconditioning and other complications, which may contribute to the development of delirium

5. **Chapter 5, pages 23**
   c. Consistency in the caregiver benefits the patient whose short-term memory may be affected; it also helps the staff get to know the patient better. In addition, it promotes the setting of a consistent care routine, which has been shown to decrease anxiety.

6. **Chapter 2, page 7**
   d. Hallucinations may be very real to delirious patients; reassurance that they will be safe may be the best intervention during the acute phase.

7. **Chapter 2, page 6; Chapter 6, page 31**
   d. A key difference in determining that a patient is delirious is the abrupt onset of symptoms from hours to days. Dementia and depression tend to have a more gradual onset.

8. **Chapter 2, page 7; Chapter 4, page 18; Chapter 6, page 27**
   d. As per the Confusion Assessment Method, for a delirium to exist, the patient must demonstrate **both** an acute onset, inattention, **and either / or** disorganized thinking or an altered level of consciousness.

9. Chapter 3, page 11

b. Evidence suggests that drug toxicity and adverse drug reactions are more likely to occur when an older patient is taking 5 or more medications.

10. Chapter 5, pages 23 - 24

a. Keep instructions simple by only asking for one thing at a time. Delirious patients may not be able to remember multiple instructions.

11. Chapter 5, pages 23 -24

c. Sensory deprivation will contribute to delirium. Patients may misinterpret sensory stimuli in the environment if they cannot see or hear. Evidence supports ensuring the patient uses all assistive devices such as glasses and hearing aids or amplifiers.

12. Chapter 5, pages 23 - 24

a. Research has shown that around the clock analgesia is more effective than PRN by maintaining a steady blood level.

13. Chapter 6, page 26 - 28

e. All elements are part of the Policy & Procedure, intended as ways to enhance care of the delirious patient. Clinical units may choose to use the Pre-Printed orders or not according to their need. There must be a consistent way to communicate the Risk, symptoms, interventions and effectiveness.

Appendix A: TOH Resource Order Numbers

Delirium: Look Screen & Intervene! Program		
Item	**Order Location**	**Order #**
Delirium Poster - English	Printing	GAU 35 E
Delirium Poster - French	Printing	GAU 35 F
Resource Handcards **Assessment of DDD**	Printing	GEN 58 E or F
Resource Handcards **Screening for Delirium**	Printing	GEN 57 E or F
Resource Handcards **Screening for Depression**	Printing	GEN 59 E
Patient Education Brochure	Printing	P 487 (16-2006) E or F
Delirium Risk Factor Alert (CAM)	Printing	GER 15
Delirium Standardized Physician Order Form	Printing	SPO 98
Delirium: Look Screen & Intervene Self-Directed Resource Guide	Printing	GEN 76 E or F
Delirium Unit Prevalence Tool	NPPD	Coordinator Nursing Quality Improvement
3A's to Alternatives: Least Restraint, Last Resource self directed	Printing	GAU 37 E or F
Set me Free: Towards Reducing Patient Restraints	D. Rossy	drossy@ottawahospital.on.ca

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