# Provincial Clinical Knowledge Topic
## *Dementia, Seniors – Inpatient*
## V 1.1

## Document History

| Version No. | Date | Description of Revision | Completed By / Revised By |
|---|---|---|---|
| 1.0 | March 29, 2017 | Document completed | Jayna Holroyd-Leduc |
| 1.1 | October 13, 2017 | Correction in acknowledgements table | Erin Hayward/ Frances Carr |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## Important Information Before you Begin

The recommendations contained in this knowledge topic have been provincially adjudicated and are based on best practice and available evidence. Clinicians applying these recommendations should, in consultation with the patient, use independent medical judgment in the context of individual clinical circumstances to direct care. This knowledge topic will be reviewed periodically and updated as best practice evidence and practice change.

The information in this topic strives to adhere to Institute for Safe Medication Practices (ISMP) safety standards and align with Quality and Safety initiatives and accreditation requirements such as the Required Organizational Practices. Some examples of these initiatives or groups are: Health Quality Council Alberta (HQCA), Choosing Wisely campaign, Safer Healthcare Now campaign etc.

The focus of this topic is to provide an approach to the diagnosis and management of dementia relevant to the acute care setting. We do not discuss the use of medications to treat dementia (e.g. Cholinesterase inhibitors; Memantine), as these are usually best started in the community and/or by a physician with expertise in the management of dementia. This topic is based on the following systematic review of high quality practice guidelines[1]:

Ngo J, Holroyd-Leduc JM. Systematic Review of Recent Dementia Practice Guidelines. *Age Ageing*. 2015; 44 (1): 25-33.

## Analytics

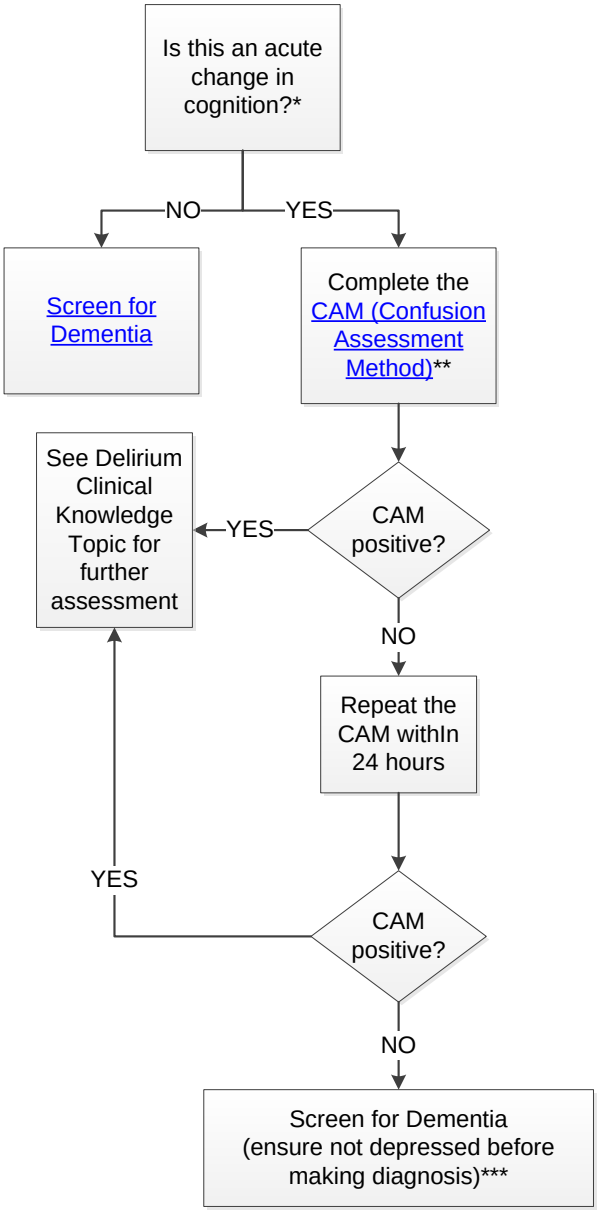
### Baseline Analytic – Outcome Measure

| | |
|---|---|
| **Name of Measure** | *Patient and Family Resource Sheet Usage for topic: Dementia, Inpatient, Adult* |
| **Definition** | *For all patients admitted who have dementia, number of times patient and family resource sheet for Dementia is being used. Overall, by region, by sites, and by units* |
| **Rationale** | *Intended to measure if the resource sheet provided in the knowledge topic is being used and what % of time. May indicate areas with adoption issues or gaps in topic* |
| **Notes for Interpretation** | *Site capacity, rural considerations, roll out of provincial CIS* |

## Decision Making

### Approach to Assessing a Patient Presenting with Confusion in Hospital

Algorithm 1: Differentiating Delirium from Dementia




** Ask family members or others who know the patient if this is a change from their baseline cognition*
*** The use of the CAM should be combined with clinical judgement to avoid missing subtle or atypical presentations of delirium*
**** See Geriatric Depression Scale*

Table 1: The Confusion Assessment Method (CAM)[2]

***(1) Acute onset and fluctuating course***

*Is there an acute change from the patient's baseline as reported by family/caregiver/healthcare provider? Does the changed behavior alternate in clarity and confusion, come and go over time, increase or decrease in severity over time?*

***(2) Inattention***

*Does the patient have difficulty focusing on topic? Can the patient not count back from 10, recite months of year backward or spell WORLD backward?*

***(3) Disorganized thinking***

*Does the patient have rambling or incoherent speech? Do they unpredictably switch from subject to subject?*

***(4) Altered level of consciousness***

*Is the patient's level of consciousness hyperalert (agitated), drowsy, stuporous or comatose?*

**A diagnosis of delirium requires the presence of features 1, 2, and either 3 or 4**

Adapted from: Inouye SK, van Dyck CH, Alessi CA, Balkin S, Siegal AP, Horwitz RI. Clarifying confusion: the confusion assessment method. A new method for detection of delirium. *Ann Intern Med* 1990; 113(12):941-8

**Why use the CAM?[3]**

- Easy to administer (5 minutes or less)
- Accurate
  - 86% Sensitive
  - 93% Specific
- High interobserver reliability (Kappa >0.8) so can be done by any healthcare provider
- Helpful at both ruling-in and ruling-out delirium:
  - +LR 9.6 (95% CI: 5.8-16)
  - -LR 0.16 (95% CI: 0.08-0.29)

**Use of the CAM**

For optimal use, individuals should be trained on how to administer and interpret the CAM.[4]

Alberta Health Services

Screening Tool: Geriatric Depression Scale (for use in individuals with preserved insight)*

Table 2: Geriatric Depression Scale[5]
(can be used to screen for depression in person with cognitive impairment if they have adequate insight)

| | |
|---|---|
| 1. Are you basically satisfied with your life? | Yes / No |
| 2. Have you dropped many of your activities and interests? | Yes / No |
| 3. Do you feel that your life is empty? | Yes / No |
| 4. Do you often get bored? | Yes / No |
| 5. Are you in good spirits most of the time? | Yes / No |
| 6. Are you afraid that something bad is going to happen to you? | Yes / No |
| 7. Do you feel happy most of the time? | Yes / No |
| 8. Do you often feel helpless? | Yes / No |
| 9. Do you prefer to stay at home, rather than going out and doing new things? | Yes / No |
| 10. Do you feel you have more problems with memory than most? | Yes / No |
| 11. Do you think it is wonderful to be alive? | Yes / No |
| 12. Do you feel pretty worthless the way you are now? | Yes / No |
| 13. Do you feel full of energy? | Yes / No |
| 14. Do you feel that your situation is hopeless? | Yes / No |
| 15. Do you think that most people are better off than you are? | Yes / No |

Scoring (1 point per answer)

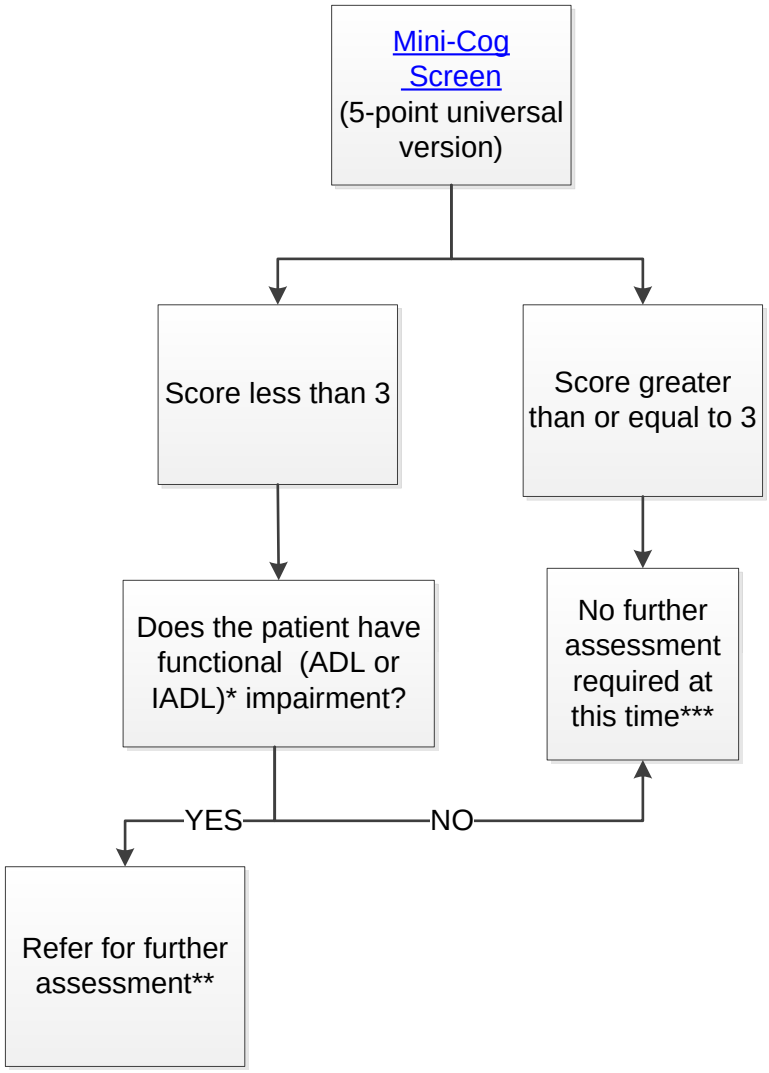
| | | | | |
|---|---|---|---|---|
| 1. No | 2. Yes | 3. Yes | 4. Yes | 5. No |
| 6. Yes | 7. No | 8. Yes | 9. Yes | 10. Yes |
| 11. No | 12. Yes | 13. No | 14. Yes | 15. Yes |

Score greater than or equal to 5 means patient requires further assessment for possible depression

Although the Geriatric Depression Scale can be self-administered, it is recommended that a health care provider help patients with potential cognitive impairment to complete the scale.

*Other tools to consider, especially in persons who lack insight (e.g. moderate-severe dementia), include the Cornell Scale for Depression in Dementia (CSDD) and the Hamilton Depression Rating Scale (HDRS)[6]

Algorithm 2: Screening for Dementia in Acute Care



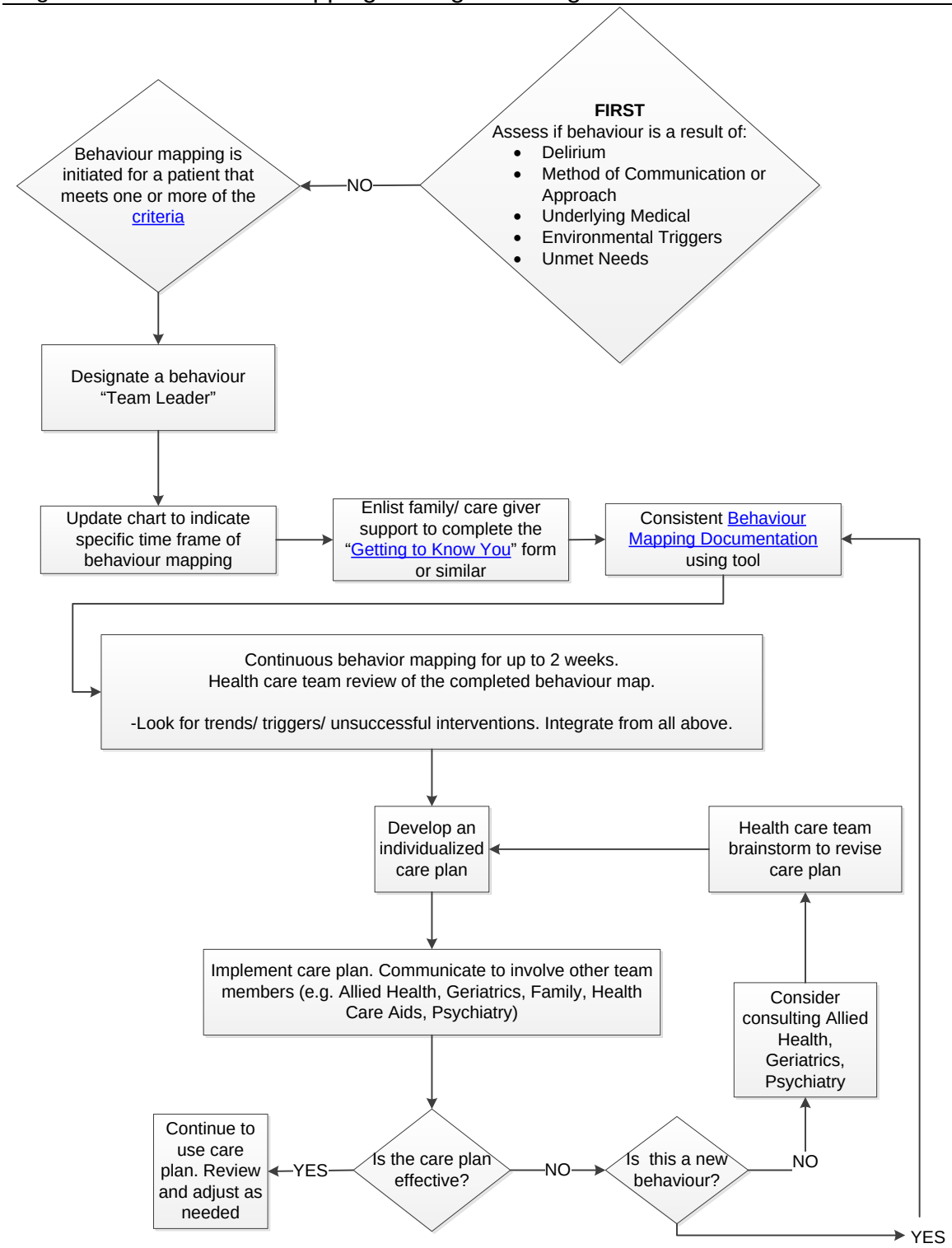

*ADL = activities of daily living; IADL = instrumental activities of daily living*
** Consider a referral to Occupational Therapy for further functional assessment including impairment in ADLs (bathing, dressing, etc.) and/or IADLs (cooking, medication administration, finances, etc.)*
*** Appropriate referral sources include: geriatric medicine (geriatrician or care of the elderly physician); psychiatrist (geriatric or adult); neurologist*
****If there are ongoing concerns consider a referral for further assessment, either in hospital or after discharge*

Screening Tool: Mini-Cog™

Universal Mini-Cog Form

Behaviour Mapping Management Algorithm

## Algorithm 3: Behaviour Mapping Management Algorithm



**Behaviour Mapping**[7]

Goal of Behaviour Mapping is to:

1. Ensure the best possible care is being delivered to patients who exhibit responsive behaviours and assist in the development of individualized care plans.
2. Assist with the transition / placement process, in particular to facilitate continuity of care delivery to patients to optimize seamless/successful transitions to the most appropriate living option.
3. Assist health care providers to identify emerging trends in regards to responsive behaviour and care plan accordingly.
4. Establish a baseline for a new patient with responsive behaviours that results in challenges to care provision.

Criteria for Initiating Behaviour Mapping:

1. When there is a change in behaviour that is distressing to the patient and/or places the patient or others at risk.
2. To note favourable changes from a patient's baseline and help identify successful interventions.
3. To establish a baseline for a new patient with responsive behaviours.
4. With initiation or titration of medications for responsive behaviours, including but not limited to antipsychotics, antidepressants or cholinesterase inhibitors.
5. With an environmental change (e.g. move to a shared room) and/or removal of restraints (physical, chemical or environmental).
6. At the request of the health care provider responsible for facilitation of transitions.

Actions of the Healthcare Provider

1. Assess whether the changes in behaviour are a result of:
    a. Delirium using the *Confusion Assessment Method* (CAM). If the CAM is positive, notify the most responsible health practitioner immediately as this may be a medical emergency
    b. Environmental triggers
        - Too Hot or Cold
        - Change in Routine
        - Boredom / Lack of Meaningful Activities
        - Changed Room / Roommate
        - Lighting Levels
        - Loud Noises / Loud Environments

- Lack of Physical Exercise
- Positioning
- Physical Restraints
- Medical Devices / Equipment (e.g. intravenous access, urinary catheter)
- Excessive Physical Stimuli (e.g. violation of personal space / privacy, perceived crowding)

c. Unmet needs
d. Method of communication and/or approach of the care provider.
   - See Nice and Easy Approach
e. An underlying medical condition such as pain, depression, medication effects or apathy.

2. Performs an assessment to determine if the patient meets the Behaviour Mapping Criteria. Designate a team leader (e.g. Advanced Practice Nurse, Clinical Nurse Educator, Manager, Clinician, Charge Nurse or Case Manager) to be responsible for the oversight, implementation and interpretation of the behaviour mapping.
3. Enlist family/care giver support in completing Behaviour Mapping. Implement the *Getting to Know You* or a similar form if not already done.
4. Health care team review of the completed behaviour map to identify any trends / triggers. Consider involving other members of the collaborative care team (e.g., Allied Health, family, Geriatrics, Health Care Aides, Psychiatry) to assist with interpretation of the behaviour map and subsequent care plan.
5. Develop an individualized care plan to minimize / mitigate behaviour.
6. Implement care plan, modify as needed and determine appropriate length of time for next health care team review.
7. Reassess to determine if care plan is addressing the identified question/concern. If care plan is not addressing the identified question / concern consider consulting Allied Health, Geriatrics or Psychiatry.
8. If medication is indicated in the care plan, treatment should be reviewed and documented for effectiveness and efficacy within 1-2 weeks.

Documentation

1. Reason for the implementation of behaviour mapping
2. Complete Behaviour Mapping Tool
   - See sample Behaviour Mapping Tool
3. The interventions implemented (include non-pharmacological and pharmacological interventions)
4. Patient response to the interventions
5. Summary of reassessment / review

# N.I.C.E & E.A.S.Y.

## Approach for the Cognitively Impaired

Provide a calm & safe environment. Promote normal ADL routines; consistent staff & robust comfort rounds.

Prior to communication attempt, optimize lighting. Ensure eyeglasses hearing aides are clean, working and used.

| | | |
|---|---|---|
| **N** | **N**ame they prefer to be called | |
| **I** | **I**ntroduce yourself each time you interact<br>N.O.D. = give the person your: Name - Occupation – Duty | |
| **C** | **C**ontact!<br>- Offer to shake hands<br>- If the person is sleeping, use ***firm*** pressure on knee / shoulder to announce your physical presence - Soft touch is 'arousing' touch (think spiders crawling across your skin…) | |
| **E** | **E**xplain what you are going to do BEFORE you do it!<br>– No one likes 'surprises'…<br>– Use single *step instructions* (5 words or less) combined with gestures / props to demonstrate what you are going to do | |
| | | |
| **E** | **E**ye contact<br>- Demonstrates 'authentic listening'<br>- 'Helps' the person focus on you (not what you may be doing) | |
| **A** | **A**void Arguments<br>– If ***any*** resistance (physical or verbal), consider trying the intervention at a later time period<br>– Ensure you have been **'NICE'** before you trial any intervention | |
| **S** | **S**mile<br>– Take a moment to *'breathe',* calm yourself, smile and you will present as a 'safer', less 'threatening' care provider | |
| **Y** | **Y**ou are the key!<br>You are in control and have the ability to change your approach to ensure a successful interaction with your patient. | |

# Dementia – Managing Agitation and Aggression

## Clinical Question & Recommendations

**Clinical Question:** What is the best approach to manage agitation and aggressive behaviour in persons with dementia?

**Clinical Recommendation:**

**Non-pharmacological (behavioural*) strategies** should be first line. Recommended strategies include environmental modification and music therapy. Exhaust all other non-pharmacological strategies before considering the use of physical restraints. Physical restraints can cause or worsen agitation and delirium. Follow all relevant provincial policies when using physical restraints.[1]

**Pharmacological therapies** should be second line and introduced with caution and awareness of side effects. Patients and/or families should be advised of risks and benefits of pharmacological therapies. Antipsychotics can be prescribed to treat severe psychosis, agitation and/or aggression that puts the patient or others at risk of harm; atypical agents are preferred. The starting dose should be low and the medications should be slowly titrated to effect. The ongoing need for antipsychotics should be reassessed frequently and medications should be tapered as early as possible. There is lack of consensus for using benzodiazepines, anticonvulsants, mood stabilizers and SSRIs for dementia-related behaviours.[1]

**Quality of Evidence:** *GRADE B*
**Strength of Recommendation:** *GRADE 1, Strong*

### *NICE & EASY Behavioural Approach[8]

**N**ame – use the name they prefer
**I**ntroduce yourself and your role – give them time to respond
**C**ontact – offer your hand to shake - paying attention to their non-verbal communication
**E**ye contact – ensure they can hear and see you
**&**
**E**xplain what you are going to do before doing it – consider unmet care needs (e.g. pain, thirst)
**A**void arguments – consider coming back later to complete care if non-urgent
**S**mile - consider your non-verbal communication
**Y**ou are the Key – stay calm, don't rush and reassure them you are there to help; You can change your approach to behavior management – they can not

## Disposition Planning

1. Considerations prior to Discharge
    - Consider involving other healthcare providers if not involved already (e.g. occupational therapy, physiotherapy, social work, pharmacy)
    - Assess for and address issues related to functional (ADL and IADL*) impairment
    - Review the resources already available to the patient in their home to help determine if further resources are needed
    - Consider and Address potential safety concerns
        - Driving - including farm machinery and scooters
        - Medication teaching / management (e.g. blister packing) and reconciliation
        - Home safety (e.g. kitchen safety, fall risk, emergency management, need for equipment)
        - Caregiver stress and need for Caregiver supports
    - To help with care planning across the health care continuum, provide family with a copy of the AHS Getting to Know You form to complete (orderable from DATA)

2. Outpatient follow-up
    - Consider need for referral to:
        - Home care - to assist with activities of daily living, medication management, and healthcare needs (e.g. wound dressings)
        - Seniors Health Services (e.g. to reassess cognition; to monitor how patient is managing in the community)

3. Patient and Family education / discharge instructions
    - Provide follow-up instructions
        - Both verbally and in writing
        - To both patient and family if appropriate
        - In the discharge summary to family physician
    - Provide patient / family sheet on Dementia resources
    - Provide information about enduring power of attorney (EPOA) and personal directive (PD) (http://www.humanservices.alberta.ca/guardianship-trusteeship.html)
    - Ensure patient/family is given their GreenSleeve at time of discharge with their updated information about GOC** and ACP**. Patient / family should also be educated about taking their greensleeves with them to all health care interactions

*ADL = activities of daily living; IADL = instrumental activities of daily living
** GOC = goals of care; ACP = advanced care planning

# Resources for Persons with Dementia and their Family Members

## *What is dementia?*

Dementia is an overall term for a set of symptoms that are caused by disorders affecting the brain. Symptoms may include memory loss and difficulties with thinking, problem-solving or language, severe enough to reduce a person's ability to perform everyday activities. A person with dementia may also experience changes in mood or behaviour.

Dementia is progressive, which means the symptoms will gradually get worse over time and a person will become increasingly more dependent on others to perform everyday activities. Dementia is not a specific disease but instead is a syndrome. Many diseases can cause dementia, but the most common is Alzheimer's disease.

**Resources related to Alzheimer's Disease & other types of Dementia:**

**AHS Dementia Advice:**
Available through Health Link: 811 http://www.albertahealthservices.ca/scns/Page12938.aspx

**The Alzheimer Society of Alberta and Northwest Territories:**
Tel: (780) 761-0030 Toll-free: 1-866-950-5465
http://www.alzheimer.ca/ab https://www.asantcafe.ca/

**The Alzheimer Society of Calgary:**
Tel: (403) 290-0110
http://www.alzheimercalgary.ca

**The Alzheimer Society of Canada:**
http://www.alzheimer.ca/en

**Alberta Aids to Daily Living (equipment, supplies, etc.):**
http://www.health.alberta.ca/services/aids-to-daily-living.html

**AHS Family Caregiver Centre:**
http://www.albertahealthservices.ca/info/service.aspx?id=1604

**Dementia Friends Canada:**
http://www.dementiafriends.ca/

**Family/caregiver Resources for Detecting Pain in People with Dementia:**
http://www.painanddementia.ualberta.ca/

**BrainXchange Canada:**
http://brainxchange.ca/

**Information on Enduring Power of Attorney and Personal Directives in Alberta**
http://www.humanservices.alberta.ca/guardianship-trusteeship.html

## Keywords

- Cognitive Impairment
- MCI (Mild Cognitive Impairment)
- Alzheimer's disease
- Memory Impairment

## References


1. Ngo J, Holroyd-Leduc JM. Systematic Review of Recent Dementia Practice Guidelines. *Age Ageing*. 2015; 44 (1): 25-33.
2. Inouye SK, van Dyck CH, Alessi CA, Balkin S, Siegal AP, Horwitz RI. Clarifying confusion: the confusion assessment method. A new method for detection of delirium. *Ann Intern Med* 1990; 113(12):941-8
3. Wong CL, Holroyd-Leduc J, Simel DL and Straus SE. Does this patient have delirium? Value of bedside instruments. *JAMA* 2010; 304:779-786.
4. Marcantonio, ER, Ngo LH, O'Connor M, Jones RN, Crane PK, Metzger ED, Inouye SK. 3D-CAM: derivation and validation of a 3-minute diagnostic interview for CAM-defined delirium: a cross-sectional diagnostic test study. *Ann Intern Med*. 2014; 161(8):554-61.
5. Yesavage JA, et al. Development and validation of a geriatric depression screening scale; a preliminary report. *J Psychiatr Res* 1982; 17:37-49.
6. Goodarzi ZS, Mele BS, Roberts DJ, Holroyd-Leduc J. Depression Case Finding in Individuals with Dementia: A Systematic Review and Meta-Analysis. *J Am Geriatr Soc*. 2017; doi: 10.1111/jgs.14713.
7. Alberta Health Services. Behaviour Mapping Process Support Document Guideline. http://insite.albertahealthservices.ca/14297.asp . Accessed December 14, 2016.
8. Alzheimer's Society of Canada

## Acknowledgements

We would like to acknowledge the contributions of the clinicians who participated in the development of this topic. Your expertise and time spent are appreciated.

| Name | Title | Zone |
|---|---|---|
| *Knowledge Lead* | | |
| Michelle Grinman (*in role until January 31, 2017)* | Physician | Provincial |
| *Topic Lead* | | |
| Jayna Holroyd-Leduc | Physician | Calgary Zone |
| *Working Group Members* | | |
| Jean Triscott | Physician | Edmonton Zone |
| Maureen Murray | Physician | Calgary Zone |
| Dave Hogan | Physician | Calgary Zone |
| Loralee Fox | Clinical Nurse Specialist | Calgary Zone |
| Anne Marie Jourdin | Registered Nurse | South Zone |
| Lili Liu | Occupational Therapist | Edmonton Zone |
| Paul Huget | Occupational Therapist | Covenant Health |
| *Clinical Support Services* | | |
| Cindy McMinis | Pharmacy Information Management Governance Committee (PIM-GC) *on behalf of* Pharmacy Services | Provincial |
| James Wesenberg | *on behalf of* Laboratory Services - Provincial Networks | Provincial |
| Bill Anderson | *on behalf of* Diagnostic Imaging Services | Provincial |
| Carlota Basualdo-Hammond & Marlis Atkins | *on behalf of* Nutrition & Food Services | Provincial |
| *SCN or Provincial Committee* | | |
| James Silvius | Senior Medical Director - Seniors Health Strategic Clinical Network | Provincial |

### Additional Contributors

*Thank you to the following clinicians who participated in the colleague review process. Your time spent reviewing the knowledge topics and providing valuable feedback is appreciated.*
*Anne Short, Cheri Komar, Deb Froese, Greta Wiegersma, Jacqueline Doran, Kathy Rasmussen, Martin Moran, Mollie Cole, Verdeen Bueckert*