

# CHCA Project ECHO Integrated Seniors Care

## All Teach, All Learn

Bridging the Knowledge Gap in  
Home and Primary Health Care



## When is it Normal, Mild Cognitive Impairment or Dementia?

Teaching Presentation: Dr. Andrew Kirk, MD, FRCPC, University of Saskatchewan

Case Study: Jennifer Letkeman, BSW, RSW, Saskatchewan Health Authority

Host: Jennifer Campagnolo, Canadian Home Care Association

October 1, 2024

# Project ECHO ISC

- Project ECHO Integrated Seniors Care (ISC), in partnership with the Canadian Medical Association, will enhance the competencies of home care and primary health care providers to meet the holistic and diverse needs of Canadian seniors with complex chronic conditions in home and community settings.



# Project ECHO ISC

## Year 1 Theme: Mild Cognitive Impairment, Dementia

- According to the Public Health Agency of Canada, approximately **597,000** Canadians were living with dementia (2020)
- **25%** of those aged 85+ are diagnosed with dementia
- Each year, about **76,000** new cases of dementia are diagnosed in Canada, with the risk increasing significantly with age

### Sources

Public Health Agency of Canada (PHAC). "Dementia in Canada, including Alzheimer's disease." Government of Canada, 2020.

Alzheimer Society of Canada. "Latest Stats on Dementia." Alzheimer.ca, 2022.

Canadian Institute for Health Information (CIHI). "Dementia in Canada." CIHI.ca, 2021.

# Project ECHO ISC

## Mild Cognitive Impairment, Dementias



Integrated Seniors Care

### Integrated Clinical Practice Approach to Educational Content:

- Early Identification and Assessment
- Collaborative Care Planning
- Team-Based Care Delivery
- Shared Decision-Making and Communication
- Engaged Persons, Family and Caregivers
- Holistic Safety and Risk Management

With a focus on the:

**SKILLS**

**KNOWLEDGE**

**ATTITUDES**

needed by primary care  
and home care providers

# Learning Objectives:

Through today's session, participants will be able to:

## Identify

risk factors and early symptoms/warning signs of dementia in seniors

## Apply

screening tools to support early identification of seniors with dementia

## Reflect

on opportunities to improve collaboration between primary care providers and home care in caring for seniors with dementia

# Introductions



**Dr. Andrew Kirk MD, FRCPC**  
Neurologist  
Professor and Head of Neurology  
University of Saskatchewan



**Jennifer Letkeman BSW, RSW**  
Primary Health Care Facilitator  
Weyburn Special Care Home – Weyburn  
Saskatchewan Health Authority

# CATCHING DEMENTIA EARLY

Andrew Kirk

University of Saskatchewan

# DISCLOSURES

- Paid speaking engagements – Biogen, Roche, Lilly.
- Advisory boards – Roche, Esai, Lilly.













# Direct Cost of Dementia

- US\$ 1.313 trillion.
- 10 South Korea
- 11 Russia
- 12 Brazil
- 13 Australia
- **14 Dementia**
- 15 Spain

# GOALS

- 1. Discuss risk factors for dementia.
- 2. Discuss common early symptoms of dementia.
- 3. Discuss screening for dementia.

# DEMENTIA

- “an acquired persistent impairment of intellectual function with compromise in at least three of the following spheres of mental activity: language, memory, visuospatial skills, emotion or personality, and cognition (abstraction, calculation, judgement, etc)”
  - Cummings and Benson, 1983



# HOW COMMON IS DEMENTIA?

- Canadian Study of Health and Ageing:
  - One in twelve people over age 65
  - One in three over age 85

# NON-MODIFIABLE RISK FACTORS FOR DEMENTIA

- Age
- Genetics:
  - Individuals with close family member with AD twice as likely.
  - Autosomal dominant transmission rare (mutations in amyloid precursor protein, presenilin 1, presenilin 2)
  - Sporadic AD – epsilon 4 allele of apolipoprotein E

# ApoE genetic variance

- Humans inherit two copies of the ApoE allele – one from each parent.
- The number of copies of the ApoE  $\epsilon 4$  allele a person carries impacts **AD risk** and **age of onset**.
  - Homozygous  $\epsilon 4$  carriers have the greatest AD risk and lowest average age of onset of 68 years:

Genotype	$\epsilon 2/\epsilon 2$	$\epsilon 2/\epsilon 3$	$\epsilon 2/\epsilon 4$	$\epsilon 3/\epsilon 3$	$\epsilon 3/\epsilon 4$	$\epsilon 4/\epsilon 4$
Risk of AD	40% less likely*	40% less likely*	2.6 times more likely*	Average risk	3.2 times more likely*	14.9 times more likely*



\* Relative to the most common ApoE  $\epsilon 3/\epsilon 3$  genotype

A $\beta$ , amyloid beta; AD, Alzheimer's disease; ApoE  $\epsilon 4$ , apolipoprotein E  $\epsilon 4$ .

Liu CC, et al. *Nat Rev Neurol*. 2013;9(2):106–118.

# POTENTIALLY MODIFIABLE RISK FACTORS

- 1. Education
- 2. Vascular risk factors (hypertension, diabetes, hypercholesterolemia, obesity, smoking)
- 3. Vascular disease
- 4. Systemic inflammation
- 5. Depression
- 6. Poor hearing
- 7. Poor vision
- 8. Air pollution
- 9. Head injury
- 10. Social isolation
- 11. Excessive alcohol
- 12. Physical inactivity

# SYMPTOMS

- Memory loss
- Difficulty performing familiar tasks
- Language problems
- Trouble navigating
- Disorientation in time and space
- Poor judgement
- Trouble calculating
- Misplacing things
- Trouble planning, organizing – e.g. bills

# SYMPTOMS

- Changes in mood
- Changes in personality
- Loss of initiative
- Hallucinations
- Delusions

# SCREENING FOR COGNITIVE IMPAIRMENT

- Prompted by:
  - 1. Patient complaint
  - 2. Informant report
  - 3. Healthcare provider suspicion

# Examples of brief *subjective* detection measures in primary care

## Informant reports

	Elements	Time to use (minutes)	Who can administer	Training to administer
<a href="#">AD8 Dementia Screening Interview</a>	<ul style="list-style-type: none"> <li>Change in function and activity secondary to cognitive impairment</li> </ul>	2	<ul style="list-style-type: none"> <li>Self-administered</li> <li>Interview</li> </ul>	Minimal
CCI	<ul style="list-style-type: none"> <li>Perceptions of cognitive decline</li> </ul>	10	<ul style="list-style-type: none"> <li>Self-administered</li> </ul>	Minimal
<a href="#">FAQ</a>	<ul style="list-style-type: none"> <li>Informant perceptions of functional changes</li> </ul>	Not specified	<ul style="list-style-type: none"> <li>Lay informant (e.g., spouse, relative, close friend)</li> </ul>	Minimal
<a href="#">IQCODE</a>	<ul style="list-style-type: none"> <li>Assess changes in memory, thinking, and planning skills</li> </ul>	10–15	<ul style="list-style-type: none"> <li>Nurses</li> <li>Providers</li> </ul>	Minimal
<a href="#">GPCog; informant version</a>	<ul style="list-style-type: none"> <li>Informant perceptions of cognitive and functional changes</li> </ul>	2	<ul style="list-style-type: none"> <li>Medical assistants</li> <li>Nurses</li> <li>Providers</li> </ul>	Minimal Can be completed online (self-administered) <a href="http://gpcog.com.au/index/informant-interview">http://gpcog.com.au/index/informant-interview</a>
<a href="#">Family questionnaire</a>	<ul style="list-style-type: none"> <li>Change in cognition and function</li> </ul>	2	<ul style="list-style-type: none"> <li>Self-administered</li> </ul>	Minimal

AD8, Alzheimer’s Disease 8 Dementia Interview; CCI, Cognitive Change Index; FAQ, Functional Activity Questionnaire; GPCog, General Practitioner Assessment of Cognition; IQCODE, Informant Questionnaire on Cognitive Decline in the Elderly.

Dementia Action Collaborative – Washington State. Brief Cognitive Screening Tools for Primary Care Practice. Washington State Department of Social and Health Services Web site. <https://www.dshs.wa.gov/sites/default/files/AL TSA/stakeholders/documents/AD/DAC%20Screening%20Position%20Paper.pdf> Accessed July 11, 2021.



## Examples of brief *objective* detection measures in primary care

	Elements	Time to use (minutes)	Who can administer	Training to administer
GPCog	<ul style="list-style-type: none"> <li>• Memory</li> <li>• Orientation</li> <li>• Aspects of visuospatial and executive function</li> </ul>	2–5	<ul style="list-style-type: none"> <li>• Medical assistants</li> <li>• Nurses</li> <li>• Providers</li> </ul>	Minimal Online training available in multiple languages
Mini-Cog	<ul style="list-style-type: none"> <li>• Memory</li> <li>• Components of visuospatial and executive function</li> </ul>	2–3	<ul style="list-style-type: none"> <li>• Medical assistants</li> <li>• Nurses</li> <li>• Providers</li> </ul>	Online training available
Memory Impairment Screen	<ul style="list-style-type: none"> <li>• Verbal memory only with greater depth involving free vs. cued recall and no demands on writing or motor function</li> </ul>	4 (half of which is distractor activity)	<ul style="list-style-type: none"> <li>• Medical assistants</li> <li>• Nurses</li> <li>• Providers</li> </ul>	Minimal

GPCog, General Practitioner Assessment of Cognition.

Dementia Action Collaborative – Washington State. Brief Cognitive Screening Tools for Primary Care Practice. Washington State Department of Social and Health Services Web site.

<https://www.dshs.wa.gov/sites/default/files/ALISA/stakeholders/documents/AD/DAC%20Screening%20Position%20Paper.pdf>  
 Accessed July 11, 2021.

# Extensively used detection tools

Test	Time to use (minutes) <sup>1</sup>	Number of items <sup>1</sup>	Scoring system <sup>1</sup>	Validity	Limitations
<a href="#">MMSE</a>	5–10	30	Cut-off: 23–24	For dementia: Sensitivity: 89% Specificity: 89% <sup>2</sup>	<ul style="list-style-type: none"> <li>• Score influenced by education, ethnicity, and social class<sup>1</sup></li> <li>• Not ideal to identify mild impairment<sup>1</sup></li> <li>• Licence needed to use MMSE<sup>3</sup></li> </ul>
<a href="#">MoCA</a>	10-12	8 cognitive domains	<26 detects MCI or dementia	Sensitivity for MCI: 90% Sensitivity for dementia: 100% <sup>1</sup>	<ul style="list-style-type: none"> <li>• Takes 10 minutes or more for patients with more severe impairment<sup>1</sup></li> <li>• Not as extensively studied as MMSE<sup>1</sup></li> <li>• Certification needed to conduct MoCA<sup>4</sup></li> </ul>

MCI, mild cognitive impairment; MMSE, Mini-Mental State Examination; MoCA, Montreal Cognitive Assessment.

1. Galvin JE. *Curr Geriatr Rep* 2018;7:19–25; 2. Patnode CD, et al. Screening for Cognitive Impairment in Older Adults: An Evidence Update for the U.S. Preventive Services Task Force. In: Rockville (MD): Agency for Healthcare Research and Quality (US);

Report No: 19-05257-EF-1. US Preventive Services Task Force Evidence Synthesis, formerly Systematic Evidence Reviews 2020;

3. PAR. Mini-Mental State Examination. <https://www.parinc.com/Products/Pkey/237>. Accessed July 11, 2021;

4. MoCA. Terms of Use. <https://www.mocatest.org/terms-and-condition/>. Accessed July 11, 2021.



# RaDAR in Primary Health Care

Primary Health Care Teams  
Interdisciplinary Collaboration

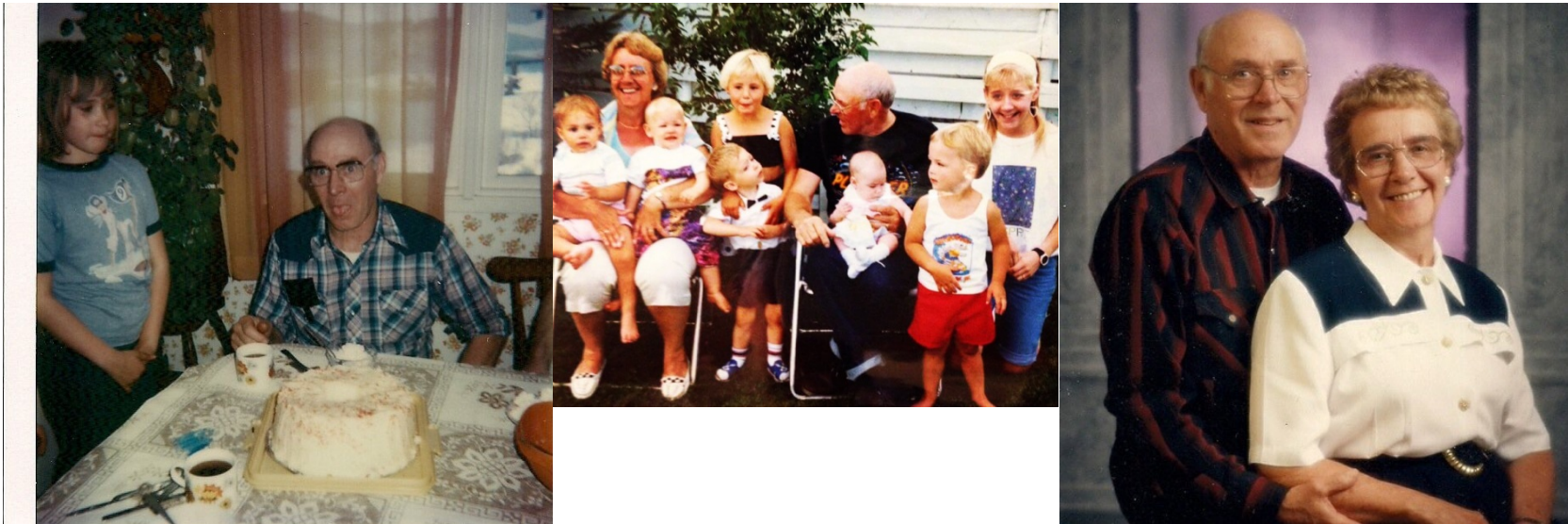
Jennifer Letkeman  
October 2024



Saskatchewan  
**Health Authority**

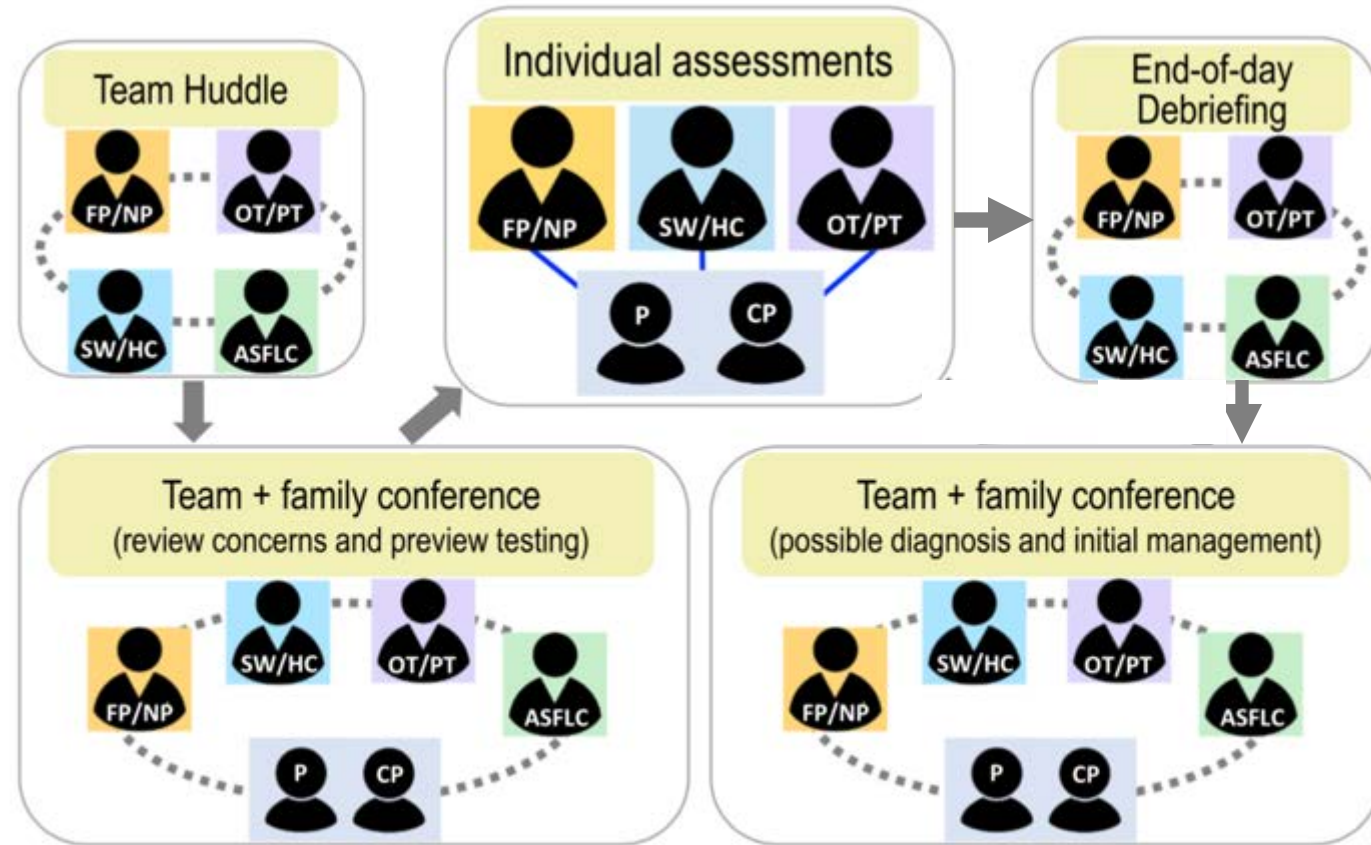
# The Patient & Caregiver

## The Story of Don and Hazel



# Model - Interprofessional Care

## Memory Clinic



FP/NP = Family Physician/Nurse Practitioner; OT/PT = Occupational Therapist/Physical Therapist;  
SW/HC = Social Worker/Home Care Nurse; ASFLC = Alzheimer Society First Link Coordinator;  
P = Patient; CP = Care Partner

# Model – EMR Decision Support

## Physician/NP

Initial Evaluation PC DATA Dementia Visit Flowsheet

PC DATA [Webpage](#)  
PC DATA [Education Manual](#)  
PC DATA [Algorithms](#)

**Physician/NP Section**

Date patient seen

**1. Demographic Data**

Living Environment

Living Situation

Main Caregiver(Relationship)

Name(POA Finances)

POA(Personal Care)

Educational Achievement

Primary Language

**2. Family History**

Family History  Anxiety  
 Depression  
 Neurological conditions  
 Schizophrenia/Bipolar  
 Alzheimer's Disease

If history of Alzheimer's Disease give specifics

**3. Past Psychiatric History**

Past Psychiatric History  Anxiety  
 Depression  
 Psychosis  
 Alcohol Use(current/past)  
 Other substance abuse(current/past)

If history of drug or alcohol abuse please specify

**4. Presenting Complaint**

Source of information regarding change:

Presenting Symptoms  Depression or Anxiety  
 Functional Decline  
 High risk population(all individuals over age 75, new onset depression, history of delirium, stroke or TIA)  
 Memory Impairment  
 Personality change  
 Psychosis or Suspiciousness

Adapted from Primary Care Assessment and Treatment Algorithm (PC-DATA)  
original developer Dr. Dallas Seitz ([seitzd@providencecare.ca](mailto:seitzd@providencecare.ca)) <http://www.pc-data.ca/>  
December 3, 2018 version

1

## Home Care

**11. History of Cognitive Changes**

Duration of Complaint(years)

Onset

Progression

**Cognitive Symptoms**

**Memory**  Difficult recalling recent events  
 Forgetting appointments  
 Forgetting conversations  
 Forgetting medications  
 Misplacing objects

**Language**  Difficulty understanding conversations  
 Dysfluency(non fluent or paraphasic)  
 Word finding difficulties  
 Word substitutions

**Visuospatial**  Difficulty navigating in unfamiliar environments  
 Getting lost while driving  
 Wandering out of home

**Agnosia**  Failing to recognize familiar locations  
 Failing to recognize familiar people

**Apraxia**  Difficulties using appliances  
 Difficulties with dressing  
 Difficulties with walking

**Complex Attention**  Difficulties following multi step sequences with intact language  
 Difficulties multitasking

**Executive Functioning**  Difficulty organizing activities  
 Difficulty planning  
 Difficulty sequencing actions  
 Loss of abstract thinking

**Associated Symptoms**

**Behavioural/Personality Changes**  Abnormal motor activity  
 Agitation/aggression  
 Anxiety  
 Apathy/loss of interest  
 Appetite/eating changes  
 Depression/dysphoria  
 Disinhibition  
 Elation/euphoria  
 Hallucinations  
 Irritability  
 Sleep disturbances  
 Socially inappropriate behaviour  
 Suspiciousness/paranoia

Adapted from Primary Care Assessment and Treatment Algorithm (PC-DATA)  
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December 3, 2018 version

4



# Model – EMR Decision Support

## Occupational Therapist

**15. Functional and Cognitive Abilities**  
**Assessment Tools**

CLOX \_\_\_\_\_  
Trails A \_\_\_\_\_  
Trails B \_\_\_\_\_  
TUGS Score \_\_\_\_\_  
Others: \_\_\_\_\_

**Task Oriented Assessment**

- Coin Sort
- Medication Management
- Cooking
- Paying Bills
- Telephone
- Menu Planning
- Categorization

Comments: \_\_\_\_\_

## Physical Therapist

**Physical Therapy Assessment**

16. Living Arrangement: \_\_\_\_\_  
Stairs/Railings: Outside: \_\_\_\_\_  
Stairs/Railings: Inside: \_\_\_\_\_

Equipment:

- Cane
- Crutches
- Standard Walker
- Zee
- Zoo
- Wheelchair

Home Oxygen: \_\_\_\_\_  
Other: \_\_\_\_\_  
Mobility: \_\_\_\_\_

Falls in the last year? \_\_\_\_\_

Comments: \_\_\_\_\_

4 Meter Walk Test: \_\_\_\_\_ m/s

## Team + family conference

**End of Occupational Therapy/Physical Therapy Section**  
**Dementia Case Conference Diagnosis and Initial Management**

**17. Impression**

Impression

- Normal Aging - no cognitive complaints, testing normal for age, doesn't meet criteria for dementia
- Subjective Cognitive Impairment - cognitive complaints, worried about cognition, but testing is normal for age and no significant functional impairment
- Mild Cognitive Impairment - Amnesic- evidence of objective memory problems (cognitive complaints, abnormal cognitive testing, no significant functional impairment)
- Mild Cognitive Impairment- Non-amnesic- no objective memory problems, problems in other areas of cognition or behaviour (cognitive complaints, abnormal cognitive testing, no significant functional impairment)
- Dementia - abnormal cognitive testing, significant cognitive decline in 2 areas of cognition (memory, language, perceptual motor, complex praxis)
- Uncertain

**18. Determine Type of Dementia**

**Alzheimer's Disease**

- Onset insidious
- Slow Progression
- Initial Symptoms often deficits in short term memory

**Vascular Dementia**

- History (stroke)
- Neuroimaging
- Physical Exam

**Mixed Alzheimer's and Vascular**

- 

**Dementia with Lewy Bodies**

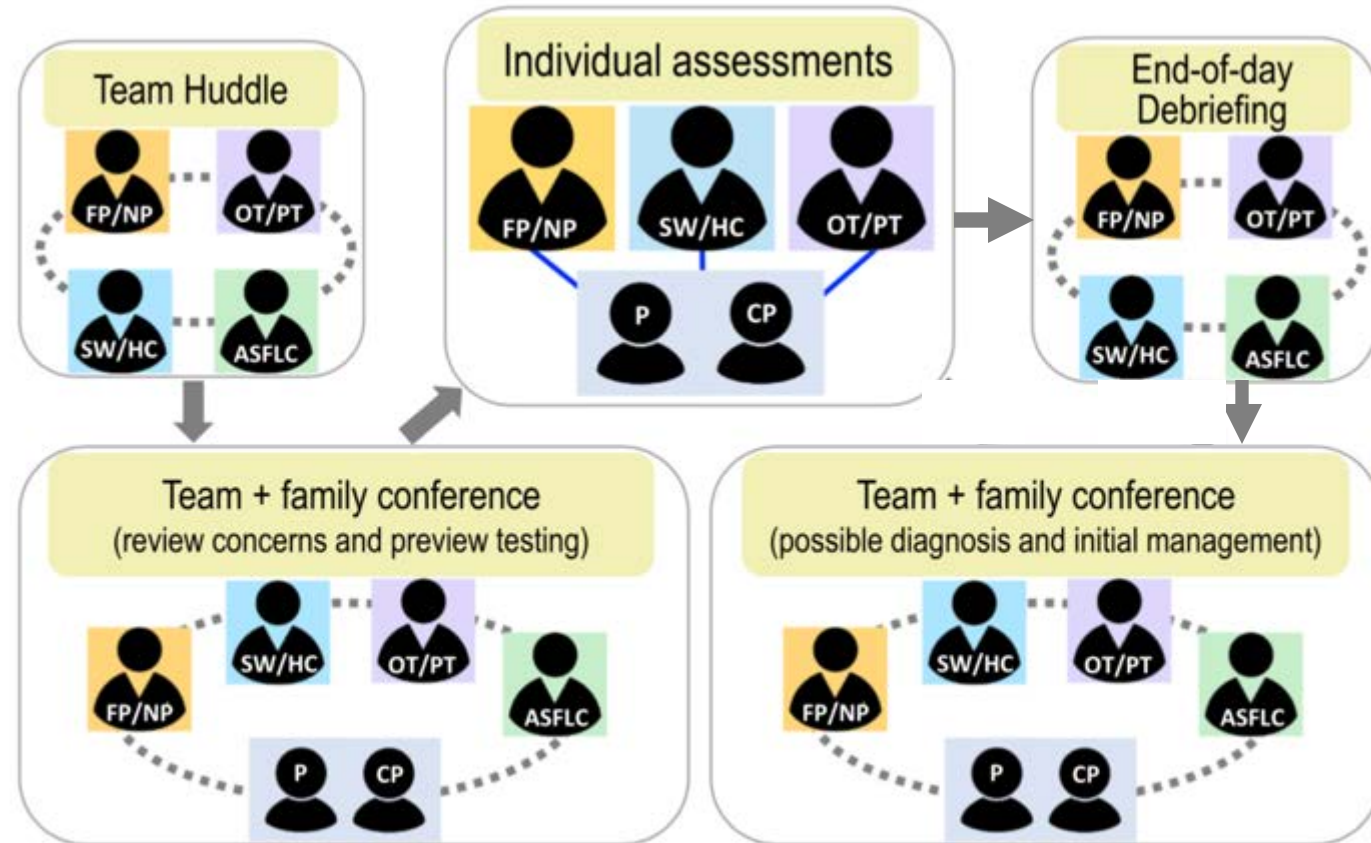
- Major criteria: Parkinsonism within 1 year of onset of cognitive symptoms
- Major criteria: visual hallucinations early in course
- Major criteria: fluctuations in cognition or level of consciousness
- Minor criteria: antipsychotic sensitivity
- Minor criteria: falls
- Minor criteria: other psychotic symptoms
- Minor criteria: REM sleep disorder

Adapted from Primary Care Assessment and Treatment Algorithm (PC-DAT) original developer Dr. Dallas Seitz ([seitzd@providencecare.ca](mailto:seitzd@providencecare.ca)) <http://www.providencecare.ca>  
December 3, 2018 version



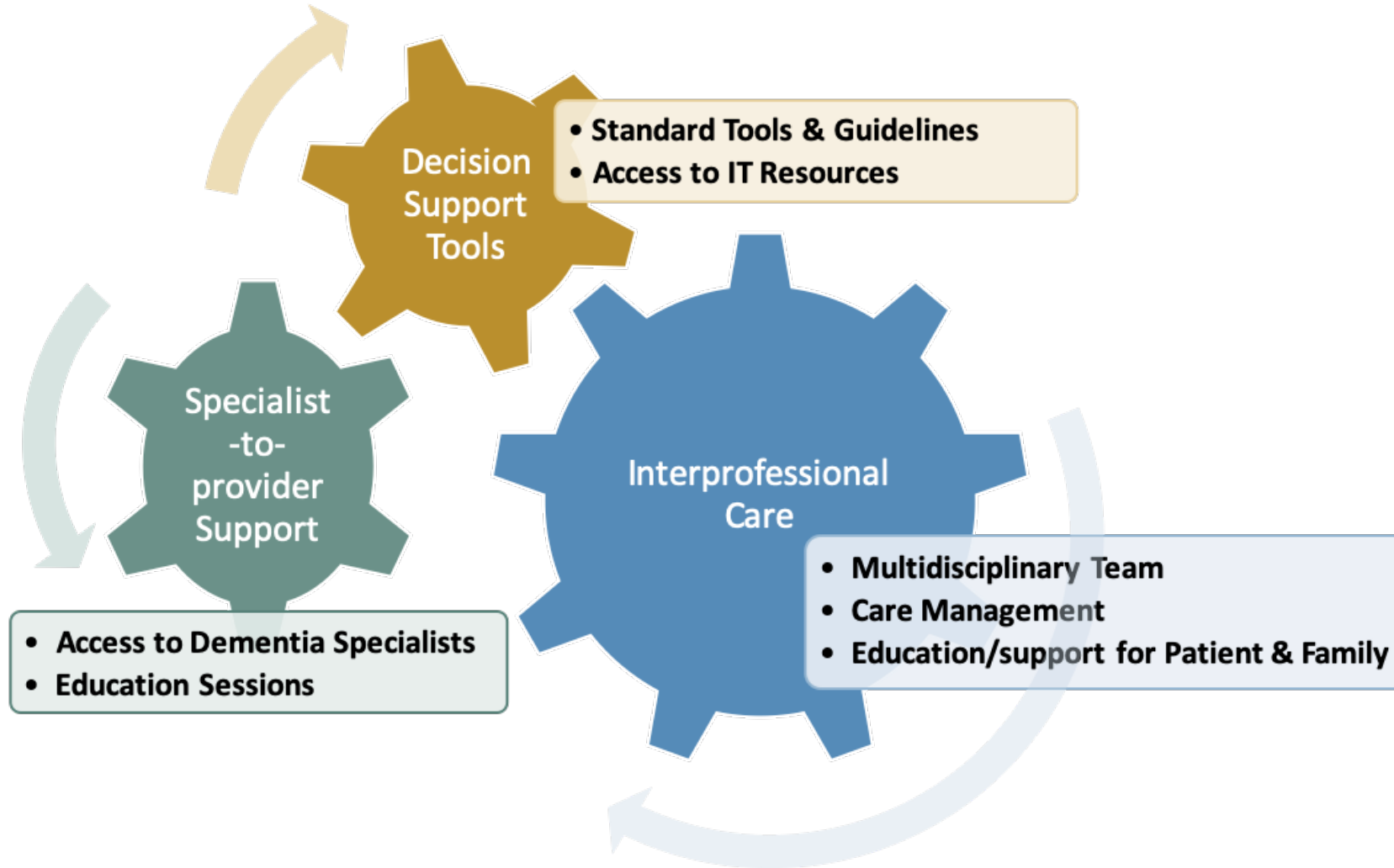
# Model - Interprofessional Care

## Memory Clinic



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# Rural PHC Model for Dementia



# Model – Decision Support Tools

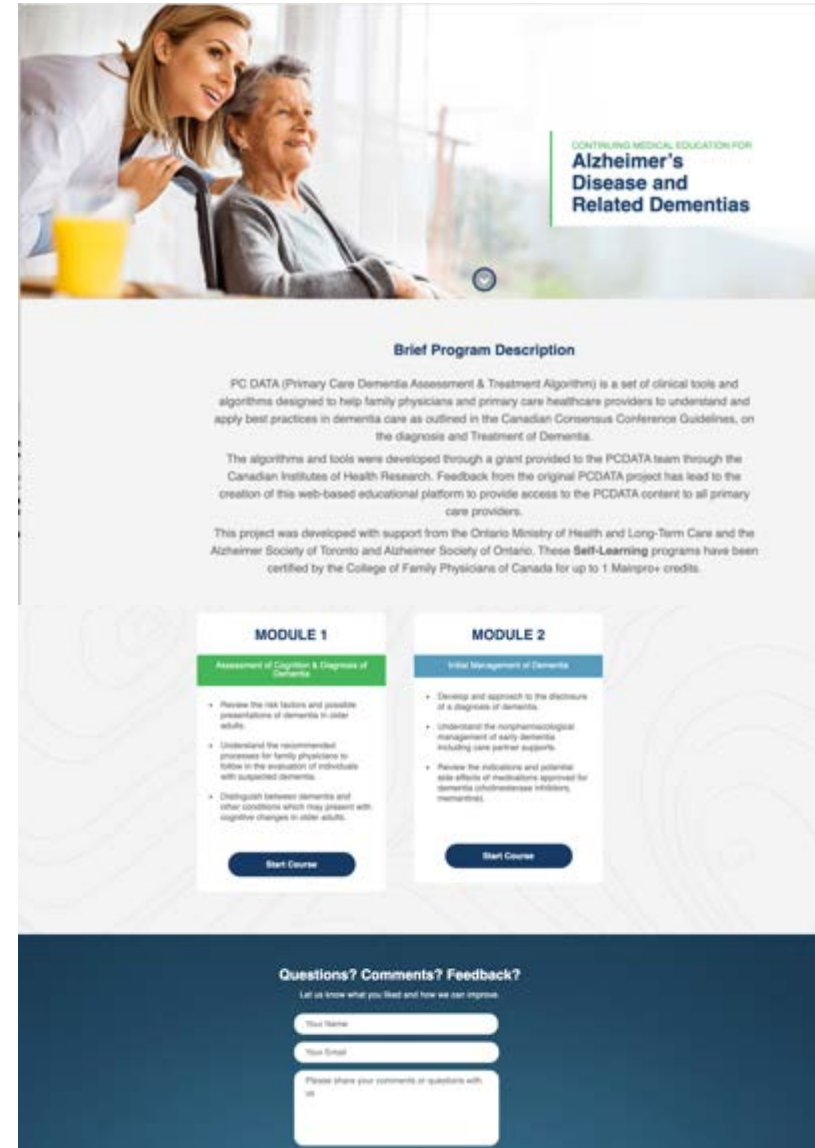
## PC-DATA™ Primary Care Dementia Assessment and Treatment Algorithm

- based on most recent Canadian guidelines (CCCDTD4)
  - Algorithms
  - Visit flow sheets
  - Education manual
  - Education sessions

**Developed by Dr. Dallas Seitz**

Geriatric Psychiatrist  
University of Calgary

<http://www.pcddata.ca/>



CONTINUING MEDICAL EDUCATION FOR  
**Alzheimer's Disease and Related Dementias**

### Brief Program Description

PC DATA (Primary Care Dementia Assessment & Treatment Algorithm) is a set of clinical tools and algorithms designed to help family physicians and primary care healthcare providers to understand and apply best practices in dementia care as outlined in the Canadian Consensus Conference Guidelines, on the diagnosis and Treatment of Dementia.

The algorithms and tools were developed through a grant provided to the PCDATA team through the Canadian Institutes of Health Research. Feedback from the original PCDATA project has led to the creation of this web-based educational platform to provide access to the PCDATA content to all primary care providers.

This project was developed with support from the Ontario Ministry of Health and Long-Term Care and the Alzheimer Society of Toronto and Alzheimer Society of Ontario. These Self-Learning programs have been certified by the College of Family Physicians of Canada for up to 1 Mairpro+ credits.

#### MODULE 1

##### Assessment of Cognition & Diagnosis of Dementia

- Review the risk factors and possible presentations of dementia in older adults.
- Understand the recommended processes for family physicians to follow in the evaluation of individuals with suspected dementia.
- Distinguish between dementia and other conditions which may present with cognitive changes in older adults.

Start Course

#### MODULE 2

##### Initial Management of Dementia

- Develop and approach to the disclosure of a diagnosis of dementia.
- Understand the non-pharmacological management of early dementia including care partner supports.
- Review the indications and potential side effects of medications approved for dementia (cholinesterase inhibitors, memantine).

Start Course

### Questions? Comments? Feedback?

Let us know what you think and how we can improve.

Your Name:

Your Email:

Please share your comments or questions with us:

# What We Have Accomplished:

- Provide the best care using best practices
- Use all of the “experts” and the Team Approach to rely on everyone’s special areas
- Educated our team in Dementia specific areas
- Reduce time to Diagnosis and Supporting Care
- Implement Clear Processes for Assessment and Reassessment
- Provide More Care Closer to Home
- Family Involvement in Care
- Spread to More Locations



Saskatchewan  
**Health Authority**

# Questions?

For more information, visit  
*[saskhealthauthority.ca](https://saskhealthauthority.ca)*.



Saskatchewan  
**Health Authority**

# Questions & Discussion



**Dr. Andrew Kirk MD, FRCPC**  
Neurologist  
Professor and Head of Neurology  
University of Saskatchewan



**Jennifer Letkeman BSW, RSW**  
Primary Health Care Facilitator  
Weyburn Special Care Home – Weyburn  
Saskatchewan Health Authority



# Upcoming TeleECHO Sessions



Integrated Seniors Care

## CHCA Project ECHO Integrated Seniors Care

All Teach, All Learn  
Bridging the Knowledge Gap in Home and Primary Health Care



Building Competencies in Integrated Care:  
Lessons from Vancouver's Home ViVE Program  
December 4 2024, 1-2pm ET

## CHCA Project ECHO Home-Based Palliative Care

All Teach, All Learn  
Bridging the Knowledge Gap in Home-Based Palliative Care



Unpacking the Principles of a Palliative Approach to Care:  
Understanding the Interdisciplinary Team  
October 9 2024 1-2pm  
Addressing Barriers to Care  
November 13 2024, 12-1pm ET

Register: [cdnhomecare.ca/chca-project-echo/](https://cdnhomecare.ca/chca-project-echo/)