McMaster University
PSYCHIATRY AND BEHAVIOURAL NEUROSCIENCES

Guelph Family Health Team

GRAND RIVER HOSPITAL
Advancing Exceptional Care

# Managing Responsive Behaviours in Dementia

David Sherman MD, MSc, FRCP(C)

May 1, 2019

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# Conflicts of Interest

- Faculty: Dr. David Sherman

- Relationships with financial sponsors :
- None

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# Conflicts of Interest

- DISCLOSURE OF FINANCIAL SUPPORT
- This program has received financial support from the following organizations in the form of unrestricted educational grants:
- Astellas, Bayer, Bayshore Home Health, Boehringer Ingelheim, Eli Lilly, GSK Canada, Merck, Mylan, Novartis, NovoNordisk, Pfizer and Purdue
- This program has received financial support from Grand River Hospital Foundation in the form of speaker honoraria.  This program has received in-kind support from Grand River Hospital in the form of logistical support.
- Potential for conflict(s) of interest:
- Dr. David Sherman will be making therapeutic recommendations for medications that have not received regulatory approval (i.e. off-label use of medications).
- Dr. David Sherman is receiving payment from the Freeport Physicians' Education Fund

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# Conflicts of Interest

- Mitigating Potential Bias:

- Recommendations for medications that have not received regulatory approval (off-label) will be highlighted during the presentation

- Recommendations for Drug Therapy will be based on peer reviewed journal articles and published guidelines

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# Learning Objectives

1. Participants will understand the DSM-5 diagnostic nomenclature of Neurocognitive Disorders
2. Participants will be able to name important side effects of commonly used medications for the management of behavioural symptoms of Neurocognitive Disorders.
3. Participants will be able to use an algorithmic approach to the management of behavioural symptoms of Neurocognitive Disorders

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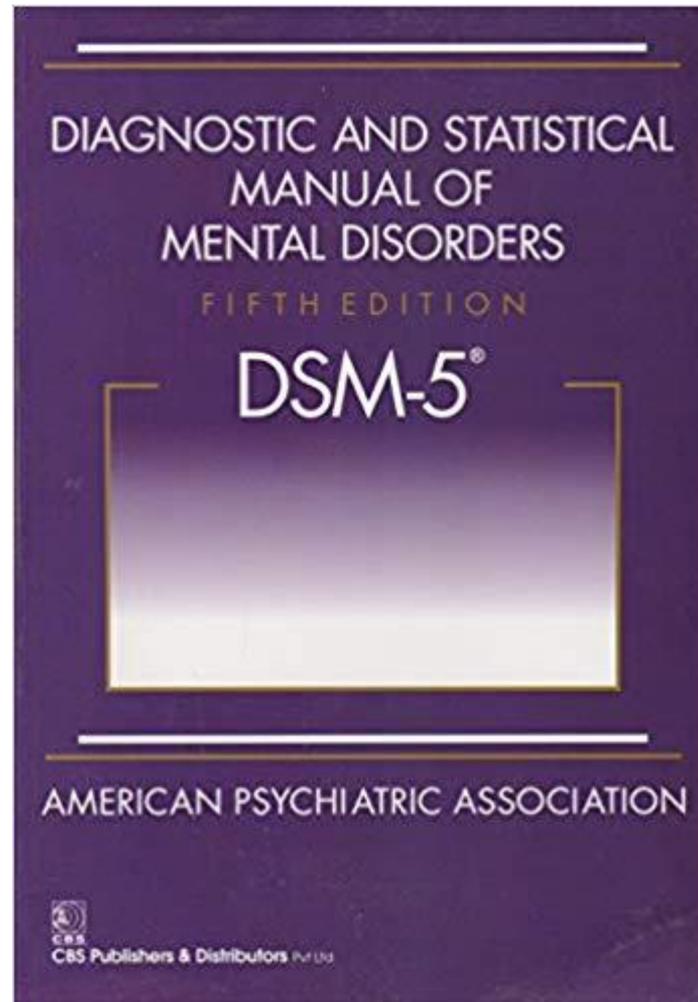
# Nomenclature

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# Neurocognitive Disorders

ex. Major Neurocognitive Disorder due to Alzheimer's disease, moderate severity, with behavioural disturbance (psychosis, agitation)

# Mild Neurocognitive Disorder

- A. Evidence of **MODEST** cognitive decline from a previous level of performance in one or more cognitive domains
  - Complex attention, executive function, learning and memory, language, perceptual-motor, or social cognition
- Based on:
  - 1. Concern of the individual, a knowledgeable informant, or the clinician that there has been a mild decline in cognitive function
    - And
  - 2. A modest impairment in cognitive performance, preferably documented by standardized neuropsychological testing, or in its absence, another quantified clinical assessment

# Mild Neurocognitive Disorder

- B. The cognitive deficits **DO NOT** interfere with capacity for independence in everyday activities
  - ie. complex instrumental activities of daily living such as paying bills or managing medications are preserved, but greater effort compensatory strategies, or accommodation may be required

# Mild Neurocognitive Disorder

- C. The cognitive deficits do not occur exclusively in the context of a delirium
- D. The cognitive deficits are to better explained by another mental disorder
  - eg. Major Depressive Disorder, Schizophrenia

# Major Neurocognitive Disorder

- A. Evidence of **SIGNIFICANT** cognitive decline from a previous level of performance in one or more cognitive domains
  - Complex attention, executive function, learning and memory, language, perceptual-motor, or social cognition
- Based on:
  - 1. Concern of the individual, a knowledgeable informant, or the clinician that there has been a **SIGNIFICANT** decline in cognitive function
    - And
  - 2. A **SUBSTANTIAL** impairment in cognitive performance, preferably documented by standardized neuropsychological testing, or in its absence, another quantified clinical assessment

# Major Neurocognitive Disorder

- B. The cognitive deficits interfere with capacity for independence in everyday activities
  - ie. at a minimum, requiring assistance with complex instrumental activities of daily living such as paying bills or managing medications

# Major Neurocognitive Disorder

- C. The cognitive deficits do not occur exclusively in the context of a delirium
- D. The cognitive deficits are to better explained by another mental disorder
  - eg. Major Depressive Disorder, Schizophrenia

# Specifiers - Etiology

- Alzheimer’s disease
- Frontotemporal lobar degeneration
- Lewy body disease (and Parkinson’s Disease)
- Vascular disease
- Traumatic brain injury
- Substance/medication use
- HIV infection
- Prion disease
- Huntingon’s disease
- Another medical condition
- Multiple etiologies
- Unspecified

# Specifiers - Severity

- *Specify* current severity:
  - Mild: Difficulties with instrumental activities of daily living (eg. Housework, managing money)
  - Moderate: Difficulties with basic activities of daily living (eg. feeding, dressing)
  - Severe: Fully dependent

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# A Continuum

| Complaint | Cognitive Testing | Functional Imairment | Diagnosis |
|---|---|---|---|
| "I can't remember!" | Normal | None | Subjective Cognitive Impairment |
| "I can't remember!" | Modest Impairment | None | Mild Neurocognitive Disorder |
| "I can't remember!" | Substantial Impairment | IADLs | Major Neurocognitive Disorder, mild |
| "I can't remember!" | Substantial Impairment | BADLs | Major Neurocognitive Disorder, moderate |
| "I can't remember!" | Substantial Impairment | Fully Dependent | Major Neurocognitive Disorder, severe |

# Specifiers - Behavioural Disturbance

- *Specify:*
  - Without behavioural disturbance
  - With behavioural disturbance (specify disturbance):
    - If the cognitive disturbance is accompanied by a clinical significant behavioural disturbance
      - Eg. Psychotic symptoms, mood disturbance, agitation, apathy or other behavioural symptoms

# Neurocognitive Disorders

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# Managing (Behavioural Disturbance) in (Neurocognitive Disorders)

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# Treatment

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# Management of Behavioural Disturbance - Non-Pharmacological Approaches

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# Management of Behavioural Disturbance - Pharmacological Approaches

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# Pharmacotherapy - Aggression and Psychosis

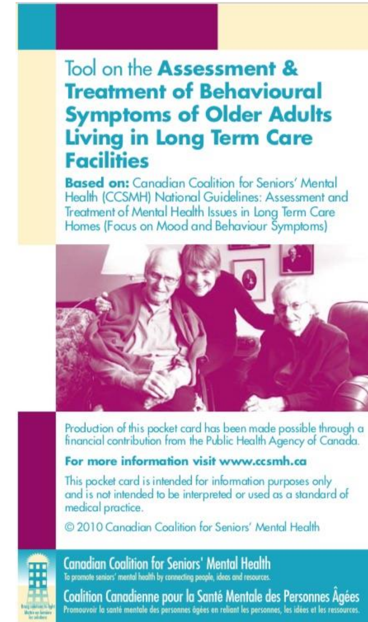
MAY 2006

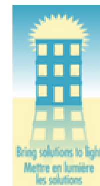
NATIONAL GUIDELINES FOR SENIORS' MENTAL HEALTH

The Assessment and Treatment of Mental Health Issues in Long Term Care Homes

(Focus on Mood and Behaviour Symptoms)

CANADIAN COALITION FOR SENIORS' MENTAL HEALTH
COALITION CANADIENNE POUR LA SANTÉ MENTALE DES PERSONNES ÂGÉES




Canadian Coalition for Seniors' Mental Health
To promote seniors' mental health by connecting people, ideas and resources.
Coalition Canadienne pour la Santé Mentale des Personnes Âgées
Promouvoir la santé mentale des personnes âgées en reliant les personnes, les idées et les ressources.

[www.ccsmh.ca](http://www.ccsmh.ca)

# Pharmacotherapy - Behavioural Disturbance

- Carefully weigh the potential benefits of pharmacological intervention versus the potential for harm. [A]

# Side Effects - Anti-depressants

- GI side effects: nausea, vomiting, diarrhea
- Cardiac side effects: prolonged QTc
- Metabolic side effects: hyponatremia due to SIADH
- Falls

# Side Effects - Anti-psychotics

- **<u>Black Box Warning! - Increased Mortality</u>**
- Stroke
- Sedation
- Extra-Pyramidal Symptoms
- Falls
- Weight gain and Metabolic Syndrome
- Prolonged QTc

# Pharmacotherapy Algorithm - Agitation, Aggression and Psychosis

- CCSMH - Alzheimer's, Vascular, and FTD:
  1. Non-violent agitation without psychosis - Anti-depressant (SSRI or trazodone)
  2. Severe agitation, physical aggression and/or psychosis - Atypical anti-psychotic
  3. Severe agitation, physical aggression - carbamazepine, short acting benzodiazepines, ECT

# Pharmacotherapy Algorithm - Agitation, Aggression and Psychosis

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Original Paper

## Sequential drug treatment algorithm for agitation and aggression in Alzheimer's and mixed dementia

Journal of Psychopharmacology
2018, Vol. 32(5) 509–523
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journals.sagepub.com/home/jop

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| | |
|---|---|
| 1. Risperidone | 5. Gabapentin |
| 2. Aripiprazole or Quetiapine | 6. Prazosin |
| 3. Carbamazepine | 7. Combinations or ECT |
| 4. Citalopram | |

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# Pharmacotherapy Algorithm - Agitation, Aggression and Psychosis

**BPSD Algorithm**

**Part1**
Interdisciplinary Decisional Support for BPSD

- **Assessment**
- **Problem Solving**
- **Care Planning / Evaluation**

**Part 2**
Reassessment with Family Physician or Nurse Practitioner for BPSD

- **Assessment**
- **Medication Options**
- **Care Planning / Evaluation**

www.bcbpsd.ca

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- CCSMH - Parkinson's Disease and Lewy Body Disease
  1. Cholinesterase Inhibitor
  2. Quetiapine
  3. Clozapine

# Cholinesterase Inhibitors Side Effects

- Cardiac: Bradycardia
- GI: Peptic Ulcer Disease, Nausea, Vomiting, Diarrhea, Weight Loss

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# Pharmacotherapy - Aggression and Psychosis

## Pharmacological Management of Lewy Body Dementia: A Systematic Review and Meta-Analysis

Chris Stinton, Ph.D., Ian McKeith, F.Med.Sci., John-Paul Taylor, Ph.D., Louise Lafortune, Ph.D., Eneida Mioshi, Ph.D., Elijah Mak, M.Sc., Victoria Cambridge, Ph.D., James Mason, D.Phil., Alan Thomas, Ph.D., John T. O'Brien, D.M.

American Journal of Psychiatry (2015) 172: 731-742

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# Pharmacotherapy - Inappropriate Sexual Behaviours

- CCSMH: Appropriate pharmacological treatment of residents with severe sexual disinhibition can include: a) hormone therapy (e.g., medroxyprogesterone, cyproterone, leuprolide); b) selective serotonin reuptake inhibitors; or c) atypical antipsychotics. [D]

# Hormonal Therapy Side Effects

- Medroxyprogesterone: mood effects
- Cyproterone: mood effects, osteoporosis
- Luprolide (Lupron): mood effects, osteoporosis

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# Summary

- How to systematically approach a DSM 5 diagnosis of a Neurocognitive Disorder
- An algorithmic approach to treatment of behavioural disturbances in neurocognitive disorders
- A review of side effect considerations of commonly prescribed medications

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# CAGP

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CANADIAN ACADEMY OF GERIATRIC PSYCHIATRY
ACADÉMIE CANADIENNE DE GÉRONTOPSYCHIATRIE

2019 Geriatric Psychiatry Online Course