

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)



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The CCSMH gratefully acknowledges support from:
POPULATION HEALTH FUND, PUBLIC HEALTH AGENCY OF CANADA *

*The opinions expressed in this publication are those of the authors/researchers and do not necessarily reflect the official views of Health Canada

The CCSMH gratefully acknowledges support from **AIRD & BERLIS LLP** for their guidance on Copyright issues and for the review and creation of the disclaimer statement.

The CCSMH gratefully acknowledges unrestricted educational grant support for the **dissemination** of the National Guidelines for Seniors' Mental Health from:

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Foreword

About the Canadian Coalition for Seniors' Mental Health

The Canadian Coalition for Seniors' Mental Health (CCSMH) was established in 2002 following a two-day symposium on "Gaps in Mental Health Services for Seniors' in Long-Term Care Settings" hosted by the Canadian Academy of Geriatric Psychiatry (CAGP). In 2002, Dr. David Conn and Dr. Ken Le Clair (CCSMH co-chairs) took on leadership responsibilities for partnering with key national organizations, creating a mission and establishing goals for the organization. The mission of the CCSMH is to *promote the mental health of seniors by connecting people, ideas, and resources*.

The CCSMH has a volunteer Steering Committee that provides ongoing strategic advice, leadership and direction. In addition, the CCSMH is composed of organizations and individuals representing seniors, family members and caregivers, health care professionals, frontline workers, researchers, and policy makers. There are currently over 750 individual members and 85 organizational members from across Canada. These stakeholders are representatives of local, provincial, territorial and federal organizations.

Aim of Guidelines

Clinical practice guidelines are defined as "systematically developed statements of recommendation for patient management to assist practitioner and patient decisions about appropriate health care for specific situations" (Lohr & Field, 1992).

The CCSMH is proud to have been able to facilitate the development of these clinical guidelines. These are the first interdisciplinary, national best practices guidelines to specifically address key areas in seniors' mental health. These guidelines were written by and for interdisciplinary teams of health care professionals from across Canada.

The aim of these guidelines is to improve the assessment, treatment, management and prevention of key mental health issues for seniors, through the provision of evidence-based recommendations. The recommendations given in these guidelines are based on the best available evidence at the time of publication and when necessary, supplemented by the consensus opinion of the guideline development group.

Acknowledgements

Funding for the CCSMH Guideline Initiative was provided by the Public Health Agency of Canada, Population Health Fund. The CCSMH gratefully acknowledges the Public Health Agency of Canada for its ongoing support and continued commitment to the area of seniors' mental health.

In addition, special thanks to the Co-leads and Guideline Development Group members who dedicated countless number of hours and engaged in the creation of the guidelines and recommendations. Your energy, enthusiasm, insight, knowledge, and commitment were truly remarkable and inspiring.

The CCSMH would like to thank all those who participated in the guideline workshops at the *National Best Practices Conference: Focus on Seniors' Mental Health 2005* (Ottawa, September 2005) for their feedback and advice.

We would also like to thank Mr. Howard Winkler and Aird & Berlis LLP for their in-kind support in reviewing the guideline documents and providing legal perspective and advice to the CCSMH.

Finally, the CCSMH would like to acknowledge the continued dedication of its Steering Committee members.

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Overview of Guideline Project

Background Context

The mission of the CCSMH is to *promote the mental health of seniors by connecting people, ideas and resources*. The primary goals of the CCSMH include:

- To ensure that Seniors' Mental Health is recognized as a key Canadian health and wellness issue
- To facilitate initiatives related to enhancing and promoting seniors' mental health resources
- To ensure growth and sustainability of the CCSMH

In order to meet the mission and goals, a number of strategic initiatives are facilitated by the CCSMH with the focus on the following areas:

- Advocacy and Public Awareness
- Research
- Education
- Human Resources
- Promoting Best Practices in Assessment and Treatment
- Family Caregivers

In January 2005, the CCSMH was awarded funding by the Public Health Agency of Canada, Population Health Fund, to lead and facilitate the development of evidence-based recommendations for best-practice National Guidelines in a number of key areas for seniors' mental health. The four identified key areas for guideline development were:

1. Assessment and Treatment of **Delirium**
2. Assessment and Treatment of **Depression**
3. Assessment and Treatment of **Mental Health Issues in Long-Term Care Homes** (focus on mood and behavioural symptoms)
4. Assessment of **Suicide Risk** and Prevention of **Suicide**

Between April 2005 and February 2006, workgroups were established for the four identified areas. The workgroups evaluated existing guidelines, reviewed primary literature and formulated documents that included recommendations and supporting text.

Necessity for the Guidelines

The proportion of Canadians who are seniors is expected to increase dramatically. By 2021, older adults (i.e., those age 65+) will account for almost 18% of our country's population (Health Canada, 1999). Currently, 20% of those aged 65 and older are living with a mental illness (MacCourt, 2005). Although this figure is consistent with the preva-

lence of mental illness in other age groups, it does not capture the high prevalence rates seen within health and social institutions. For example, it has been reported that 80%-90% of nursing home residents live with some form of mental illness and/or cognitive impairment (Rovner et al., 1990; Drance, 2005).

Previously, there were no interdisciplinary national guidelines on the prevention, assessment, treatment and management of the major mental health issues facing older Canadians although there are recommendations from a Consensus Conference on the assessment and management of dementia (Patterson et al., 1999; updated version to be published shortly). Given the projected growth of the seniors' population, the lack of an accepted national standard to guide their care is a serious problem.

There is an immediate need to identify, collaborate and share knowledge on effective mental health assessment and treatment practices relevant to seniors. As such, the CCSMH National Guideline Project was created to support the development of evidence-based recommendations in the four key areas of seniors' mental health identified above.

Objectives

The overall project goal was to develop evidence-based recommendations for best practice guidelines in four key areas of seniors' mental health.

Project Objectives:

1. To identify existing best-practice guidelines in the area of seniors' mental health both within Canada and internationally.
2. To facilitate the collaboration of key healthcare leaders within the realm of seniors' mental health in order to review existing guidelines and the literature relevant to seniors' mental health.
3. To facilitate a process of partnership where key leaders and identified stakeholders create a set of recommendations and/or guidelines for identified areas within seniors' mental health.
4. To disseminate the draft recommendations and/or guidelines to stakeholders at the CCSMH Best Practices Conference 2005 in order to create an opportunity for review and analysis before moving forward with the final recommendations and/or guidelines.
5. To disseminate completed guidelines to health care professionals and stakeholders across the country.

Principles and Scope

Guiding principles included the following:

- Evidence-based
- Broad in scope
- Reflective of the continuum of settings for care
- Clear, concise, readable
- Practical

Scope

- Must be multi-disciplinary in nature
- Will focus on older adults only
- Must include all health care settings across the continuum
- Should acknowledge the variation (i.e., in services, definitions, access issues, etc.) that exists between facilities, agencies, communities, regions and provinces across the country
- Must deal explicitly with areas of overlap between the four National Guidelines for seniors' mental health
- While four independent documents will be created,

there will be cross-referencing between documents as need arises

- Gaps in knowledge will be identified and included in the guideline documents
- Research, education and service delivery issues should be included in the guidelines. For example, the guidelines may address "optimal services", "organizational aspects", "research", and "education."

In addition, each Guideline Development Group identified scope issues specific to their topic.

Target Audience

There are multiple target audiences for these guidelines. They include multidisciplinary care teams, health care professionals, administrators, and policy makers whose work focuses on the senior population. In addition, these guidelines may serve useful in the planning and evaluation of health care service delivery models, human resource plans, accreditation standards, training and education requirements, research needs and funding decisions.

Guideline Development Process

Creation of the Guideline Development Group

An interdisciplinary group of experts on seniors' mental health issues were brought together under the auspices of the CCSMH to become members of one of the four CCSMH Guideline Development Groups. Co-leads for the Guideline Development Groups were chosen by members of the CCSMH Steering Committee after soliciting recommendations from organizations and individuals. Once the Co-leads were selected, Guideline Development Group members and consultants were chosen using a similar process, including suggestions from the Co-leads. One of the goals in selecting group members was to attempt to create an inter-disciplinary workgroup with diverse provincial representation from across the country.

Creation of the Guidelines

In May 2005, the Guideline Development Groups convened in Toronto, Ontario for a two-day workshop. Through large and small group discussions, the workshop resulted in a consensus on the scope of each practice guideline, the guideline template, the identification

of relevant resources for moving forward, and the development of timelines and accountability plans.

A number of mechanisms were established to minimize the potential for biased recommendations being made due to conflicts of interest. All Guideline Development Group members were asked to complete a conflict of interest form, which was assessed by the project team. This was completed twice throughout the process. The completed forms are available on request from the CCSMH. As well, the guidelines were comprehensively reviewed by external stakeholders from related fields on multiple occasions.

The four individual Guideline Development Groups met at monthly meetings via teleconference with frequent informal contact through email and phone calls between workgroup members. As sections of the guidelines were assigned to group members based on their area of expertise and interest, meetings among these subgroups were arranged. As well, monthly meetings were scheduled among the Co-leads. The CCSMH project director and manager were responsible for facilitating the process from beginning to end.

Phase I: Group Administration & Preparation for Draft Documents (April/June 2005)

- Identification of Co-leads and Guideline Development Group Members
- Meetings with Co-leads and individual Guideline Development Groups
- Establish terms of reference, guiding principles, scope of individual guidelines
- Development of timelines and accountability plans
- Creation of guideline framework template
- Comprehensive literature and guideline review
- Identification of guideline and literature review tools and grading of evidence tools

Phase II: Creation of Draft Guideline Documents (May/Sept. 2005)

- Meetings with co-leads & individual workgroups
- Shortlist, review & rating of literature and guidelines
- Summarized evidence, gaps & recommendations
- Creation of draft guideline documents
- Review and revisions of draft documents

Phase III: Dissemination & Consultation (May 2005/Jan. 2006)

The dissemination of the draft guidelines to external stakeholders for review and consultation occurred in the following three stages:

Stage 1: Dissemination to guideline group members (May/December 2005)

Revised versions of the guidelines were disseminated to Guideline Development Group members on an ongoing basis.

Stage 2: Dissemination to CCSMH Best Practices Conference participants (Sept. 2005)

In order to address issues around awareness, education, assessment and treatment practices, a national conference was hosted on September 26th and 27th 2005 entitled "*National Best Practices Conference: Focus on Seniors' Mental Health*". Those attending the conference had the opportunity to engage in the process of providing stakeholder input into the development of one of the four national guidelines. The full-day workshops focused on appraising and advising on the draft national guidelines and on dissemination strategies.

The workshop session was broken down into the following activities:

- Review of process, literature and existing guidelines
- Review of working drafts of the guidelines
- Comprehensive small and large group appraisal and

analysis of draft guidelines

- Systematic creation of suggested amendments to draft guidelines by both the small and large groups
- Discussion of the next steps in revising and then disseminating the guidelines. This included discussion on opportunities for further participation

Stage 3: Dissemination to guideline consultants and additional stakeholders. (October 2005/January 2006)

External stakeholders were requested to provide overall feedback and impressions and to respond to specific questions. Feedback was reviewed and discussed by the Guideline Development Groups. This material was subsequently incorporated into further revisions of the draft guideline.

Additional stakeholders included: identified project consultants; Public Health Agency of Canada, Federal/ Provincial/Territorial government groups; CCSMH members and participating organizations; CCSMH National Best Practices Conference workshop participants; Canadian Academy of Geriatric Psychiatry; and others.

Phase IV: Revised Draft of Guideline Documents (Oct. 2005/Jan. 2006)

- Feedback from the Best Practices Conference Workshops was brought back to the Guideline Development Groups for further analysis and discussion
- Feedback from external stakeholders was reviewed and discussed
- Consensus within each guideline group regarding recommendations and text was reached
- Final revisions to draft guideline documents

Phase V: Completion of Final Guideline Document (Dec. 2005/Jan. 2006)

- Final revisions to draft guideline documents by Guideline Development Groups
- Completion of final guidelines and recommendations document
- Final guidelines and recommendations presented to the Public Health Agency of Canada

Phase VI: Dissemination of Guidelines (Jan. 2006 - onwards)

- Identification of stakeholders for dissemination
- Translation, designing and printing of documents
- Dissemination of the documents to stakeholders through electronic and paper form
- Marketing of guidelines through newsletters, conference presentations, journal papers, etc.

See *Appendix A* for the detailed Process Flow Diagram outlining the development of the guidelines.

Literature Review

A strategic and comprehensive review of the existing research literature on the assessment and management of mood and behaviour symptoms in LTC homes was completed.

Search Strategy for Existing Evidence

A computerized search for relevant evidence-based summaries, including guidelines, meta-analyses, and literature reviews, and research literature not contained in these source documents, was conducted by librarian consultants to the Guidelines Project and by the CCSMH. The search strategy was guided by the following inclusion criteria:

- English language references only
- References specifically addressed depressive and/or behaviour symptoms in LTC homes
- Guidelines, meta-analyses and reviews were dated January 1995 to May 2005
- Research articles were dated January 2000 to June 2005

Guideline, Meta-analyses and Literature Reviews Search

The initial search for existing evidence-based summaries (e.g., guidelines, protocols) examined several major databases, specifically, Medline, EMBASE, PsycInfo, CINAHL, AgeLine, and the Cochrane Library. The following search terms were used: "long term care", "residential care institutions", "nursing homes", "homes for the aged", "agitation", "wandering", "agitated behavior", "bipolar disorder", "depression", "mood disorders", "affective disorders", "social behavior disorders", "behavioral symptoms", "dementia", "delirium", "disruptive behavior", "elderly", "older adult(s)", "aged", "geriatric", "guideline(s)", "practice guideline(s)", "practice guideline(s) older adults", "protocol(s)", "best practice guideline(s)", and "clinical guide-line(s)".

In addition, a list of websites was compiled based on known evidence-based practice websites, known guideline developers, and recommendations from Guideline Development Group members. The search results and dates were noted. The following websites were examined:

- American Medical Association: <http://www.ama-assn.org/>
- American Psychiatric Association: <http://www.psych.org/>
- American Psychological Association: <http://www.apa.org/>
- Annals of Internal Medicine: <http://www.annals.org/>
- Association for Gerontology in Higher Education: <http://www.aghe.org/site/aghewebsite/>

- Canadian Mental Health Association: <http://www.cmha.ca/bins/index.asp>
- Canadian Psychological Association: <http://www.cpa.ca/>
- National Guidelines Clearinghouse: <http://www.guideline.gov/>
- National Institute on Aging: <http://www.nia.nih.gov/>
- National Institute for Health and Clinical Excellence: <http://www.nice.org.uk/>
- National Institute of Mental Health: <http://www.nimh.nih.gov/>
- Ontario Medical Association: <http://www.oma.org/>
- Registered Nurses Association of Ontario: <http://www.rnao.org/>
- Royal Australian and New Zealand College of Psychiatrists: <http://www.ranzcp.org/>
- Royal College of General Practitioners: <http://www.rcgp.org.uk/>
- Royal College of Nursing: <http://www.rcn.org.uk/>
- Royal College of Psychiatrists: <http://www.rcpsych.ac.uk/>
- World Health Organization: <http://www.who.int/en/>

This search yielded 26 potentially relevant guidelines. These were further considered by the Guideline Development Group Co-leads as to whether they specifically addressed the guideline topic and were accessible either on-line, in the literature, or through contact with the developers. Through this process, 10 guidelines were selected and obtained for inclusion in the literature base for the project. These 10 guidelines were:

- Alexopoulos, GS, Jeste DV, Chung H, Carpenter D, Ross R, & Docherty JP. The expert consensus guideline series: Treatment of dementia and its behavioural disturbances. A Postgrad Med Special Report 2005.
- American Geriatrics Society, American Association for Geriatric Psychiatry (AGS/AAGP). Consensus statement on improving the quality of mental health care in U.S. nursing homes: management of depression and behavioural symptoms associated with dementia. *Journal of American Geriatrics Society* 2003;51(9): 1287-98.
- American Medical Directors Association (AMDA). Depression: clinical practice guidelines. Columbia (MD): AMDA; 2003. Available: www.amda.ca
- Doody RS, Stevens JC, Beck C, Dubinsky RM, Kaye JA, Gwyther L, et al. Practice parameter: management of dementia (an evidence-based review). Report of the quality standards subcommittee of the American Academy of Neurology. *Neurology* 2001;56(9):1154-66.

- Futrell M, Melillo KD. Evidence-based protocol: Wandering. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Centre, Research Dissemination Core; 2002. Available: http://www.guideline.gov/summary/summary.aspx?doc_id=3250&nbr=002476&string=002476
- Gerdner L. Evidence-based protocol: Individualized music. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Centre, Research Dissemination Core; 2001. Available: http://www.guideline.gov/summary/summary.aspx?doc_id=3073&nbr=002299&string=002299
- McGonigal-Kenney ML, Schutte DL. Non-pharmacological management of agitated behaviours in persons with Alzheimer's disease and other chronic dementing conditions. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core; 2004. Available: http://www.guideline.gov/summary/summary.aspx?doc_id=6221&nbr=003992&string=003992
- Registered Nurses Association of Ontario (RNAO). Caregiving strategies for older adults with delirium, dementia and depression. Toronto (ON): Registered Nurses Association of Ontario; 2004. Available: http://www.rnao.org/bestpractices/completed_guidelines/BPG_Guide_C4_caregiving_elders_ddd.asp
- Registered Nurses Association of Ontario (RNAO). Screening for delirium, dementia and depression in older adults. Toronto (ON): Registered Nurses Association of Ontario; 2003. Available: http://www.rnao.org/bestpractices/completed_guidelines/BPG_Guide_C3_ddd.asp
- Thiru-Chelvam B. Bathing persons with dementia. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core; 2004 Available: http://www.guideline.gov/summary/summary.aspx?doc_id=6220&nbr=003991&string=003991

The Guideline Development Group used the *Appraisal of Guidelines for Research and Evaluation Instrument* (AGREE) (AGREE Collaboration, 2001) to appraise the most directly relevant previously published guideline: AGS/AAGP (2003). This process served both to confirm our confidence in reliance on this source, and enhance awareness of the factors to be taken into consideration in relying on evidence and recommendations from other source guidelines in the development of our contribution to this literature.

In addition, the search yielded several relevant Cochrane Library reviews, and a number of key review articles. The reference lists for these articles were hand searched by mem-

bers of the Guideline Development Group for relevant research articles and 35 of these were obtained in full text as a component of the initial search strategy.

Supplemental Research Literature Search

The timeframe (2000-2005) for the supplemental research literature search was selected in consideration of the publication dates of the relevant guidelines, as it was assumed that these guidelines, collectively, could be relied on as acceptable sources of the prior literature.

Searches were conducted separately for each database (Medline, EMBASE, PsycInfo, CINAHL, AgeLine, the Cochrane Library), with necessary variance in controlled vocabulary (i.e., minor differences in search terms as prescribed by each database). The core search strategy for all databases was to limit it to papers dealing with humans, written in English, and published between 2000 and 2005.

Each search also included terms to encompass location (i.e. exploded terms: long term care, nursing home, residential care institutions), age (aged) and symptoms/disorders (i.e. affective disorders, behaviour disorders, mood disorders, psychotic disorders, cognitive disorders, depression, dementia, delirium, amnesic, senile dementia, behavioural symptoms, inappropriate sexual behaviour, disruptive behaviour, social behavioural disorders, mental disorders, obsessive-compulsive disorder, psychophysiological disorders).

As expected, search term combinations yielded low rates for relevant citations. For example, in Medline, a search for five of the disorders noted above (i.e., social behavioural disorders or mental disorders or etc.) yielded 97951 hits. However, when search terms "long term care" (exploded) and "aged" were added to the search, the yield dropped to 95 citations. In order to further focus the search, the 95 abstracts were audited on-line, resulting in the identification of 12 studies that were relevant and applicable to this project.

The librarian and project Co-lead followed a similar process (database search followed by on-line audit) for various search combinations. Through this process, 56 potentially relevant articles, not previously identified through the search for evidence-based summaries (i.e. guidelines, meta-analyses and literature reviews), were found. Abstracts were circulated to members, and 32 recent research articles were selected. Full text articles were obtained to add to the literature base. As the development of the guideline document progressed, additional literature (i.e. summaries and research articles) was identified through targeted searches and expert knowledge contributions on the part of the Guideline Development Group. The resultant reference base includes over 200 citations.

Formulation of Recommendations

The selected literature was appraised with the intent of developing evidence-based, clinically sound recommendations. Based on relevant expertise and interest, the Guideline Development Group was divided into sub-groups and completed the drafting of recommendations for their particular section. The process generated several drafts that were amalgamated into a single document with a set of recommendations confirmed by consensus. Thus, the recommendations are based on research evidence, informed by expert opinion.

The strength of each recommendation was assessed using Shekelle and colleagues' (1999) Categories of Evidence and Strength of Recommendations. Prior to the CCSMH Best Practices Conference, the Guideline Development Group Co-leads reviewed the draft documents and approved the recommendations. After the conference, each Guideline Development Group reviewed their recommendations and discussed gaps and controversies. Areas of disagreement were discussed and recommendations were endorsed. A criterion of 80% consensus in support of a recommendation among Guideline Development Group members was required for the inclusion of a recommendation in the final document. In reality, consensus on the final set of recommendations was unanimous.

The evidence and recommendations were interpreted using the two-tier system created by Shekelle and colleagues (1999). The individual studies are categorized from I to IV. The category is given alongside the references and has been formatted as (reference).^{Category of Evidence}

Categories of evidence for causal relationships and treatment

Evidence from meta-analysis of randomized controlled trials	Ia
Evidence from at least one randomized controlled trial	Ib
Evidence from at least one controlled study without randomization	IIa
Evidence from at least one other type of quasi-experimental study	IIb
Evidence from non-experimental descriptive studies, such as comparative studies, correlation studies and case-control studies	III
Evidence from expert committees reports or opinions and/or clinical experience of respected authorities	IV

(Shekelle et al., 1999)

The strength of the recommendations, ranging from A to D (see below), is based on the entire body of evidence (i.e., all studies relevant to the issue) *and the expert opinion of the Guideline Development Group regarding the available evidence*. For example, a strength level of D has been given to evidence extrapolated from literature on younger population groups or is considered a good practice point by the Guideline Development Group.

Given the difficulties (e.g., pragmatic, ethical and conceptual) in conducting randomized controlled trials with older persons in LTC homes, it was important for the Guideline Development Group to assess and use the evidence of those trials that incorporated quasi-experimental designs (Tilly & Reed, 2004).

It is important to interpret ratings for the strength of recommendation (A to D) as a synthesis of all the underlying evidence and not as a strict indication of the relevant importance of the recommendation for clinical practice or quality of care. Some recommendations with little empirical support, resulting in a lower rating for strength on this scale, are in fact critical components of service delivery in the LTC setting. Level of risk has also been considered when assigning strength of recommendation.

Strength of recommendation

Directly based on category I evidence	A
Directly based on category II evidence or extrapolated recommendation from category I evidence	B
Directly based on category III evidence or extrapolated recommendation from category I or II evidence	C
Directly based on category IV evidence or extrapolated recommendation from category I, II, or III evidence	D

(Shekelle et al., 1999)

Organization of Recommendations

Following a discussion of *Background Information (Part 1)*, recommendations are presented and discussed in the subsequent sections of this Guideline.

In *Part 2: General Care*, we provide recommendations for the delivery of care to all LTC residents, in the interest of mental health promotion.

In *Part 3: Assessment of Mental Health Problems and Mental Health Disorders*, we provide recommendations for the assessment of depressive and behavioural symptoms in LTC residents. In the assessment section, depressive and behavioural symptoms are considered together, except for where the literature is specific to one or the other symptom pattern.

In contrast, in *Part 4: Treatment of Depressive Symptoms and Disorders*, and *Part 5: Treatment of Behavioural Symptoms*, symptoms are discussed separately, for a number of reasons. For example, there is empirical support for specific psychotherapies (e.g., cognitive-behavioural

therapy) for treatment of depressive symptoms, but not for behavioural symptoms. While activity therapy and social contact interventions have been suggested for both symptom presentations, the types of activities and social contact interventions that have been empirically supported differ. For example, social contact intervention for depression includes peer volunteers, while one-to-one interactions, pet-therapy and simulated interactions have been investigated for behavioural symptoms. In addition, pharmacological treatment of these symptoms/syndromes includes different medications and must take into account the underlying diagnosis. **Importantly, while psychosocial and pharmacological interventions are discussed sequentially for clarity within each symptom set (depressive versus behavioural), it is acknowledged that interventions often are, and should be integrated in practice** (Cohen-Mansfield, 2001).

In *Part 6: Organizational and System Issues*, we provide recommendations that apply to the broader context of care delivery, at the facility and system level.

Key Concepts, Definitions and Abbreviations

Key Concepts and Definitions

There are several key concepts and definitions that underpin the discussion of the literature and formulation of the recommendations presented in this document. In alphabetical order, these are as follows:

Assessment: is understood to be a comprehensive, ongoing process, that includes: (1) screening to detect depressive and behavioural symptoms; (2) structured, goal-directed investigation to identify factors precipitating, maintaining and exacerbating identified symptoms, which leads to client-centered, evidence-based interpretation of assessment findings, including formal diagnosis where appropriate; and (3) ongoing evaluation of clinical outcomes and treatment effectiveness to determine the need for reassessment and re-conceptualization of contributing factors.

Assessment Protocol: is understood to refer to a problem-oriented framework that guides thinking about an issue. An assessment protocol structures the decision-making process so that the assessment process is efficient, yet comprehensive enough to lead to an appropriate care plan for an individual resident. The interRAI suite of tools (including the Minimum Data Set) provides an example of a research-based, standardized approach to the development of assessment protocols (www.interRAI.org, 2006; Morris et al., 1995). Assess-

ment protocols and processes should be supported with specific timelines and staff accountabilities (expertise and scope of practice) for optimal effectiveness.

Behavioural Symptoms: are understood to include observable behaviours that are: (1) inappropriate or excessive within the context of the situation/setting; and (2) disturbing, disruptive or potentially harmful to the resident and/or others.

Depressive Symptoms: are understood to include those symptoms that constitute a diagnosis of Major Depressive Disorder or the proposed diagnosis of Minor Depressive Disorder, or other mood disorders, according to the *Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision* (DSM-IV-TR) criteria (American Psychiatry Association (APA), 2000a). It is acknowledged that depressive symptom presentation in older adults may be atypical, subsyndromal or difficult to distinguish from other comorbid conditions.

Interdisciplinary Team: is understood to include a variety of disciplines, representing both facility based staff and external consultants. It is acknowledged that there is no consensus on the optimal mix of expertise and scopes of practice, and within any given facility, clinical resources may differ. However, a key concept underlying these Guidelines is that effective mental health promotion and management of mental health problems,

including mental disorders, requires an interdisciplinary team effort. It is beyond the scope of these Guidelines to propose criteria for interdisciplinary team composition within LTC homes, or to address the challenges of resource availability. However, the centrality of this issue for the implementation of these best practice recommendations is acknowledged. In this document, care providers refer to members of interdisciplinary teams and staff.

Long Term Care Homes: For the purpose of these Guidelines, the term long term care homes (LTC) is used generically. This term is used to refer to any congregate living residence, created for older adults and others with chronic illnesses, disabilities, and/or deficits in activities of daily living (ADL) or instrumental activities of daily living (IADL) that necessitate skilled nursing care on a daily basis. This would include, for example, facilities known as nursing homes and complex care facilities. It is acknowledged that there is wide variability in how LTC homes are defined, funded and structured in different provinces and territories. It is also recognized that there is variation of services within and across retirement homes and assisted living facilities. Recommendations from these Guidelines may serve useful to these alternative settings for care as well.

Management: is understood to include interventions intended to modify the milieu (social and/or physical environment) to prevent the potential for depressive or behavioural symptoms (e.g., changes in the facility dining room to promote increased or appropriate opportunities for interaction), and interventions intended to address existing depressive or behavioural symptoms experienced by a resident. Thus, management includes, but is broader than, formal assessment and treatment.

Mental Disorders: are understood to include those conditions defined in the DSM-IV-TR, a multi-axial classification system (APA, 2000a). The five axes are: 1) Clinical Disorders, Other Conditions that may be a focus of Clinical Attention; 2) Personality Disorders, Mental Retardation; 3) General Medical Conditions; 4) Psychosocial and Environmental Problems; and 5) Global Assessment of Functioning.

Mental Health: is understood as “the capacity of the individual, the group and the environment to interact with one another in ways that promote subjective well-being, the optimal development and use of mental abilities (cognitive, affective and relational), the achievement of individual and collective goals consistent with justice and the attainment and preservation of fundamental equality” (Health and Welfare Canada, 1988). Although mental health is conceptualized as an individual resource, it is affected by the social context in which the individual lives. Key aspects of mental health for older adults include autonomy, self-esteem, relationships, and social supports (Waters, 1995). Mental health is a broad concept, and mental health care, like health care in gen-

eral, can be viewed along a continuum from promotion of good mental health to treatment of serious mental illness (American Association for Retired People (AARP), 1994).

Mental Health Problems: are understood to reflect internal causes (e.g., physical or mental illness, inadequate coping skills) and/or external causes (e.g., interactions with the social and/or physical environment; relationship dynamics) (Health and Welfare Canada, 1988). Both bio-medical and non-biomedical factors that can affect mental health must therefore be taken into account when identifying or addressing seniors’ mental health problems. Mental health problems include discrete mental disorders. Mental health problems in late life often occur in the context of medical illness, disability, and psychosocial impoverishment.

Mental Health Promotion: is understood as the process of enhancing the capacity of residents to take control over their lives and improve their mental health. For example, by working to increase self-esteem, coping skills, social support and well-being in all individuals, mental health promotion empowers residents to interact within their social and physical environment in ways that enhance emotional and spiritual strength. Mental health promotion serves to foster individual resilience and promote a socially supportive milieu within the LTC facility. Mental health promotion includes challenging discrimination and stigma against those with mental health problems.

Resident: For the purpose of these Guidelines, the term resident is used to refer to older adults who live in LTC homes. A key concept is that each resident is an individual, who deserves an individualized approach to care delivery. It is acknowledged that the target population encompasses a heterogeneous group of individuals, widely varied not only in chronological age (65 to plus 100 years of age), but also in culture, ethnicity, race and sexual orientation. Given the state of knowledge, no attempt is made to refine recommendations as a function of population subgroups, although the significance of respect for cultural diversity and need for further research in this area is acknowledged. It is further acknowledged that younger adults may also reside in LTC homes, for example, individuals with acquired brain injuries or developmental delays. The content of these Guidelines may be relevant to these residents as well. However, the focus of this literature review and subsequent development of guidelines has been on older adults.

Treatment: is understood to include specific therapeutic interventions (i.e., psychological and social, as well as pharmacological) for an identified problem at the level of the individual resident (i.e., in this context, depressive and/or behavioural symptoms that warrant intervention). Treatment should follow an individualized assessment, and treatment effectiveness should be monitored and evaluated.

Abbreviations

There are a number of abbreviations utilized within this guideline. In alphabetical order, these are as follows:

AAGP: American Association for Geriatric Psychiatry

AAI: Abilities Assessment Instrument

AARP: American Association of Retired Persons

ABC: Antecedents-Behaviour-Consequences

AD: Alzheimer's Disease

ADL: Activities of Daily Living

AGS: American Geriatrics Society

AMDA: American Medical Directors Association

APA: American Psychiatric Association

APN: Advanced Practice Nurse

BARS: Brief Agitation Rating Scale

BEHAVE-AD: Behaviour Pathology in Alzheimer's Disease Rating Scale

BLT: Bright Light Therapy

BMT: Behaviour Management Training

BPSD: Behavioural and Psychological Symptoms of Dementia

BSSD: Behavioural Symptoms Scale for Dementia

CANMAT: Canadian Network for Mood and Anxiety Treatments

CES-D: Centre for Epidemiological Studies of Depression Scale

CMAI: Cohen-Mansfield Agitation Inventory

CPA: Canadian Psychiatric Association

CSDD: Cornell Scale for Depression in Dementia

DLB: Dementia with Lewy Bodies

DSM-IV-TR: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Text Revision

ECT: Electroconvulsive Therapy

FAI: Feeding Abilities Assessment

GDS: Geriatric Depression Scale

HPRD: Hours Per Resident per Day

IADL: Instrumental Activities of Daily Living

KU: Knowledge Utilization

LTC: Long Term Care

MDS: Minimum Data Set

MMSE: Mini-Mental Status Examination

NPI: Neuropsychiatric Inventory

PAS: Pittsburgh Agitation Scale

POA: Powers of Attorney

PRN: Pro Re Nata (as needed)

PST: Problem-Solving Therapy

RCT: Randomized Controlled Trial

RNAO: Registered Nurses Association of Ontario

SCN: Suprachiasmatic Nuclei

SSRI: Selective Serotonin Reuptake Inhibitors

TCA: Tricyclic Antidepressant

Summary of Recommendations

All recommendations are presented together at the beginning of this document for easy reference. Subsequently, in each section we present the recommendation followed by a discussion of the relevant literature. We strongly encourage readers to

refer to the supplemental text discussion, rather than only using the summary of recommendations. The page numbers for the corresponding text are given with the recommendations below.

Recommendations: General Care

Recommendation: General Care – Family Involvement (p. 17)

Encourage and support the involvement and education of the family in the institutional life of the older resident, including decision-making processes, as appropriate. [C]

Recommendation: General Care – Care Plan (p. 18)

Individualize care plans, with due consideration to best practice guidelines and recommendations. [D]

Recommendation: General Care – Communication (p. 18)

Implement strategies to promote communication between care providers and residents. [B]

Recommendation: General Care – Dressing (p. 19)

Develop an individualized approach when assisting the resident with dressing. [B]

Recommendation: General Care – Bathing (p. 20)

Develop an individualized protocol for each resident that minimizes negative affect and promotes a sense of well being during bathing. [A]

Recommendation: General Care – Activities (p. 20)

Consider the need to pace activities that residents are involved in throughout the day. [B]

Recommendation: General Care – Mealtime (p. 20)

Consider the need to develop mealtime care-giving activities to enhance nutrition and prevent behaviours that interfere with nutritional and social needs. [D]

Recommendations: Assessment of Mental Health Problems and Mental Disorders

Recommendations: Assessment – Screening (p. 22 -23)

The facility's assessment protocol should specify that screening for depressive and behavioural symptoms will occur both in the early post-admission phase and subsequently, at regular intervals, as well as in response to significant change. [C]

A variety of screening tools that are appropriate to the setting and resident population should be available to facilitate the screening process. [D]

Tool selection should be determined by the characteristics of the situation (e.g., resident capacity for self-report, nature of the presenting problem). [D]

Screening should trigger detailed investigation of depressive and behavioural symptoms under defined circumstances. [D]

Recommendations: Assessment – Detailed Investigation (p. 23 – 25)

Core elements of a detailed investigation should include history and physical exam, with follow up laboratory and psychological investigations, investigations of the social and physical environment, and diagnostic tests as indicated by the results of the history and physical exam, and treatment history and response. [C]

It is important to consider all contributing factors. Investigation of potentially contributing factors (e.g., delirium, chronic pain) should refer to clinical practice guidelines for these conditions where available. [D]

Diagnosis and differential diagnosis should be an assessment objective where appropriate. [D]

The end point of a detailed investigation should be the determination of the need for, type, and intensity of treatment. [D]

Recommendations: Assessment – Ongoing Evaluation (p. 25)

The treatment plan should specify the timeline and procedure for ongoing evaluation of clinical outcomes and treatment effectiveness. [D]

Ongoing evaluation should include history and assessment of change in the target symptoms. [D]

Assessment of change should include quantification, preferably with the same tool that was used pre-intervention. [D]

Unexpected clinical outcomes and treatment effects should trigger re-assessment and potentially re-conceptualization of the factors precipitating, maintaining and exacerbating depressive and behavioural symptoms. Potential adverse reactions to treatment should be evaluated. [D]

Recommendations: Treatment of Depressive Symptoms and Disorders

Recommendation: Depressive Symptoms: General Treatment Planning (p. 26)

Consider type and severity of depression in developing a treatment plan. [B]

Recommendation: Depressive Symptoms: Psychological and Social Interventions (p. 27 – 28)

Social contact interventions, including interventions that promote one's sense of meaning, should be considered where the goal is to reduce depressive symptoms. [C]

Structured recreational activities should be considered where the goal is to engage the resident. [C]

Psychotherapies should be considered where the goal is to reduce depressive symptoms. [B]

Self-affirming interventions (e.g. validation and reminiscence therapies) should be considered where the goal is to increase sense of self-worth and overall well-being. [C]

Recommendation: Depressive Symptoms: Psychological and Social Interventions (p. 29)

Consider the impact of comorbid dementia in developing a treatment plan. [C]

Recommendation: Depressive Symptoms: Pharmacological Interventions (p. 30 – 31)

First line treatment for residents who meet criteria for major depression should include an antidepressant. [A]

Appropriate first line antidepressants for LTC home residents include selective serotonin reuptake inhibitors (e.g., citalopram and sertraline), venlafaxine, mirtazapine, bupropion. [B]

For residents with major depression with psychotic features, a combination of antidepressant and antipsychotic medications is appropriate. [B]

Residents with a first episode of major depression responding well to antidepressant treatment should continue on full dose treatment for at least 12 months. Residents who have had at least one previous episode of depression should continue with treatment for at least two years. [A]

The treatment of depressed residents with a history of bipolar mood disorder should include a mood stabilizer such as lithium carbonate, divalproex sodium or carbamazepine. [B]

Residents with severe depression not responding to medications should be considered for a trial of electroconvulsive therapy (ECT). (These residents will likely require transfer to a psychiatric facility). [B]

Psychostimulants (e.g., methylphenidate) may have a role in treating certain symptoms which are commonly associated with depression (e.g., apathy, decreased energy). [C]

Recommendations: Treatment of Behavioural Symptoms

Recommendation: Behavioural Symptoms: Psychological and Social Interventions (p. 32 – 35)

Social contact interventions should always be considered, especially where the goal is to minimize sensory deprivation and social isolation, provide distraction and physical contact, and induce relaxation. [C]

Sensory/relaxation interventions (e.g., music, snoezelen, aromatherapy, bright light) should be considered where the goal is to reduce behavioural symptoms, stimulate the senses and enhance relaxation. [B/D]

Structured recreational activities should be considered where the goal is to engage the resident. [C]

Individualized behaviour therapy should be considered where the goal is to manage behaviour symptoms (e.g., contextually inappropriate, disturbing, disruptive or potentially harmful behaviours). [C]

Recommendation: Behavioural Symptoms: Pharmacological Interventions (p. 36 – 38)

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

Appropriate first line pharmacological treatment of residents with severe behavioural symptoms with psychotic features includes atypical antipsychotics. [B] Atypical antipsychotics should only be used if there is marked risk, disability or suffering associated with the symptoms. [C]

Appropriate first line pharmacological treatment of residents with severe behavioural symptoms without psychotic features can include: a) atypical antipsychotics; b) antidepressants such as trazodone or selective serotonin reuptake inhibitors (e.g., citalopram or sertraline). Antipsychotics [B]; Antidepressants [C]

Pharmacological treatment of residents with severe behavioural symptoms can also include: a) anticonvulsants such as carbamazepine; b) short or intermediate acting benzodiazepines. Carbamazepine [B]; Benzodiazepines. [C]

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]

Appropriate pharmacological treatment of behavioural symptoms associated with frontotemporal dementia can include trazodone or selective serotonin reuptake inhibitors. [B]

Appropriate pharmacological treatment of residents with behavioural symptoms or psychosis associated with Parkinson's disease or dementia with Lewy bodies includes: a) cholinesterase inhibitors; or as a last resort b) an atypical antipsychotic with less risk of exacerbating extrapyramidal symptoms, (e.g., quetiapine). Cholinesterase inhibitors [B]; Quetiapine. [C]

Pharmacological treatments for behavioural symptoms or psychosis associated with dementia should be evaluated for tapering or discontinuation on a regular basis (e.g., every 3-6 months). Ongoing monitoring for adverse effects should be under taken. [A]

Recommendations: Organizational and System Issues

Recommendation: Organizational Issues (p. 39 – 41)

LTC homes should develop the physical and social environment as a therapeutic milieu through the intentional use of design principles. [D]

LTC homes should have a written protocol in place related to staffing needs specific to the care of older residents with mood and/or behavioural symptoms. [C]

LTC homes should have an education and training program for staff related to the needs of residents with depression and/or behavioural concerns. Ideally dedicated internal staff would be available to provide leadership in this area, including the development and delivery of best practices. [C]

LTC homes should have a written protocol in place related to the administration of medication by para-professional staff. [D]

LTC homes should have a written policy in place regarding the use of restraints. [D]

Recommendation: System Issues (p. 41 – 42)

LTC homes should obtain mental health services from local practitioners or multidisciplinary teams, with interest and expertise in geriatric mental health issues. [D]

Administrators and managers within LTC homes should be prepared to advocate with local, provincial, and national policy makers and funding agencies to promote the health and well being of older residents. [D]

LTC homes should have a process in place that ensures adherence to the ethical and legislative rights of the older resident. [D]

LTC homes should ensure adequate planning, allocation of required resources and organizational and administrative support for the implementation of best practice guidelines. [D]

LTC homes should monitor and evaluate the implementation of best practice recommendations. [D]

Part 1: Background Information

1.1 Scope of Guidelines

These Guidelines are intended to promote mental health and address mental health problems (including mental disorders) in older residents of LTC homes. The specific focus is on depressive and behavioural symptoms. We include recommendations that address general care and system issues, as well as recommendations for the assessment and treatment of depressive and behavioural symptoms presented by individual residents.

1.2 Target Population: Older Adults who Reside in Long Term Care Homes

In recent decades as the elderly population in modern industrial countries has rapidly increased, the number of seniors receiving care in LTC homes has also increased dramatically. In Canada the actual number has risen from 203,000 in 1986 to 240,000 in 1996 (National Advisory Council on Aging, 1999) and this number is continuing to increase. By 2021, seniors will account for 18% of the population for a total of 6.7 million people (Health Canada, 1999). Projections for 2031 suggest that the number of LTC beds will triple or even quadruple. The population aged 85 and over is growing at the fastest rate and this is the group that is most likely to require LTC. According to Statistics Canada, in 1996 38% of all women aged 85 and over lived in an institution, compared with 24% of similarly aged men (Health Canada, 2002).

The rate of institutionalization varies somewhat between Canadian provinces. Seniors are least likely to be institutionalized in British Columbia, where 5.4% of seniors live in institutions (Health Canada, 1999). In contrast, seniors are most likely to be institutionalized in Quebec, Prince Edward Island or Alberta. The statistics from Quebec reflect the fact that many seniors in that province reside in a religious institution (Health Canada, 1999). Important worldwide trends in nursing home care include: a) a growth in the physical size of homes; b) an increase in the availability of higher levels of care; c) a significantly greater percentage of residents with dementia and severe cognitive impairment; d) more residents with psychiatric and behavioural disorders; e) the development of national standards and legislation in some countries; and f) attempts to humanize LTC homes by optimizing the physical and social environment.

There is evidence that the majority of elderly residents of nursing homes are somewhat disabled and require a considerable degree of care and assistance. In the 1995 U. S. National Nursing Home Survey, 96.9% of residents required assistance with at least one activity of daily living, including: 96% requiring assistance with bathing, 86% with dressing, 58% with toileting and 45% with

eating (U.S. National Center for Health Statistics, 1997). In addition, there is evidence that one's inability to perform the activities of daily living contribute significantly to the final decision regarding admission to a nursing home.

1.3 Prevalence of Mental Health Problems and Mental Health Disorders in Long Term Care Residents

The literature suggests that there is an extremely high prevalence of mental disorders among nursing home residents. Recent studies using sophisticated methods report prevalence rates of between 80% and 90%. For example, one of the most rigorous studies was carried out by Rovner and colleagues (1990), who reported the prevalence of specific psychiatric disorders in 454 consecutive nursing home admissions. More than two thirds of the residents had some form of dementia, 10% suffered from affective disorders and 2.4% were diagnosed as having schizophrenia or another psychiatric illness. Forty percent of the residents suffering from dementia had psychiatric complications such as depression, delusions or delirium.

Depression is extremely common in the nursing home setting. Studies suggest that between 15% and 25% of nursing home residents have symptoms of Major Depression and another 25% have depressive symptoms of lesser severity (Ames, 1990; Katz et al., 1989). The incidence of newly diagnosed depression has been estimated to be 12-14% per year, with about half of all new cases meeting criteria for major depression. In addition, follow-up studies of residents with mild depression have shown that many are likely to become more significantly depressed over time. It can be difficult to confirm a diagnosis of depression, particularly in patients with co-existing dementia and/or chronic medical illness. There is evidence to suggest that depression can contribute significantly to a general deterioration of health in seniors. Decreased food and fluid intake may lead to under-nutrition, dehydration, weight loss and impaired resistance to infection. Studies also suggest that depression is associated with increased mortality rates in LTC with a relative risk of between 1.5 and 3, as compared to non-depressed patients (Borson & Fletcher, 1996).

The prevalence of psychosis in nursing home residents appears to range from 12-21% depending on how psychotic symptoms are measured. One study reported that 21% of newly admitted nursing home residents had delusions (Morriss et al., 1990). The differential diagnosis of psychosis in the elderly includes many disorders, ranging from schizophrenia to delusional disorder, mood disorders and delirium. Although there are a relatively low number of residents with schizophrenia, this is

a particularly difficult group to treat in the LTC setting. Some seniors who have suffered from schizophrenia for most of their lives have been transferred from psychiatric institutions to LTC homes, which generally have limited mental health workers available.

Individuals with dementia suffer from cognitive impairment, usually consisting of memory impairment and difficulty in at least one other cognitive area. In addition to memory disturbance, many residents with dementia also have behavioural symptoms, which include agitation, aggression, wandering, repetitive or bizarre behaviours, shouting, disinhibited behaviours and sexually inappropriate behaviour. Agitation has been defined as “inappropriate verbal, vocal or motor activity unexplained by apparent needs or confusion” (Cohen-Mansfield & Billig, 1986). Agitated behaviours can be categorized as disruptive, but non-aggressive, socially inappropriate or aggressive. Aggression can be defined as hostile actions directed towards others, the self or objects, and can be categorized further as physical, verbal or sexual. A review of the literature regarding the prevalence of the behavioural and psychological symptoms of dementia reported median figures of 44% for global agitation, 24% for verbal aggression and 14% for physical aggression (Tariot & Blazina, 1994). Individuals who demonstrate signs of acute confusion may be suffering from delirium, which is generally a reversible condition precipitated by a physical illness or medications. Patients suffering from delirium may be extremely agitated or alternatively may become withdrawn and drowsy to the point of stupor. For more information on delirium, please refer to the companion *National Guidelines for Seniors’ Mental Health: The Assessment and Treatment of Delirium* (CCSMH, 2006).

Despite the high prevalence of mental disorders, studies have demonstrated limited availability of psychiatric and mental health services for residents living in Canadian LTC homes (Conn & Silver, 1998; Conn et al, 1992).

1.4 Principles and Assumptions Guiding the Care of Residents in LTC Homes

The recommendations in these Guidelines are based on principles and assumptions that should guide the care received by all residents in LTC homes. These principles and assumptions are over-arching and will promote and support the mental health of all residents, whether or not they have mental health problems (including mental disorders).

Principles

The following principles should underpin the care-giving milieu in LTC homes. They are consistent with other sets of principles developed through reiterative consultation with older adults, family caregivers, volunteers, geriatric

specialists in psychiatry, health care professionals, and organizations interested in elderly persons or those at risk of mental health problems (AGS/AAGP, 2003; British Columbia Ministry of Health, 2002; RNAO, 2004).

- Residents should receive care that is individualized, person-centred, and, to the extent desired and possible, self-directed.
- Families should be respected as part of the resident’s ongoing social support system and integrated within the LTC setting in mutually acceptable and supportive roles.
- Care should reflect an integrated consideration of biological, psychological and social needs. A biopsychosocial model expands the focus from individual pathology to a consideration of the whole person, including both strengths and limitations, within the context of their social and physical environment.
- A culture of caring that includes principles of psychosocial rehabilitation to maximize quality of life should be established. Psychosocial rehabilitation emphasizes the importance of involvement in developing and realizing one’s own personal care and life goals. The need for health promotion and treatment services that assist residents to manage their symptoms and build on their strengths is integral to this approach.
- An increasingly supportive and assistive social and physical environment, responsive to residents’ changing needs, should be created to maintain function and compensate for functional decline (e.g., in individuals with dementia). This includes shifting the primary focus from tasks to relationships.
- Preventative interventions, including strategies for maintaining wellness, and early interventions for mental health problems and disorders, should be developed, implemented and incorporated into specific training programs for both informal and formal caregivers.
- All staff, regardless of their discipline or role, should be supported in maintaining the knowledge and skills necessary to provide informed and competent care.

Assumptions

Facilities that provide LTC for seniors vary widely in size, appearance, resources and service models. What they have in common, however, is that they house combined accommodation and health care services for individuals who are unable to manage in a less supportive physical and social environment. The following are assumptions about facility-based LTC that underpin these Guidelines.

Focus of Care: The main focus of care for persons in LTC homes should be on overall well-being and quality of life, which includes addressing the needs of the individual, even when those needs are not articulated as may be the case in dementia and some mental disorders.

Thus, a core assumption of these Guidelines is that there is a need to focus on both mental health and mental illness in the care of older adults who reside in LTC homes.

Diversity: Each resident is an individual, who deserves an individualized approach to care delivery. It is acknowledged that the target population encompasses a heterogeneous group of individuals, widely varied not only in chronological age (65 to plus 100 years of age), but also in culture, ethnicity, race and sexual orientation. Given the state of knowledge, no attempt is made to refine recommendations as a function of population subgroups. While these specific issues are not discussed herein, it is assumed that care providers will identify special needs and make appropriate adaptations to the Guidelines where required.

Resources: Service delivery differs across the country based on differences in provincial/territorial legislation, and differences in access to resources (e.g., northern versus southern geography, urban versus rural communities). Therefore, the availability of health care professionals and how they perform their work, of secondary and tertiary resources, and access to specialists varies. A core assumption underlying these Guidelines is that effective mental health promotion and management of mental health problems, including mental disorders, requires an interdisciplinary team effort. It is beyond the scope of these Guidelines to propose criteria for interdisciplinary team composition within LTC homes, or to address the challenges of available resources. However, the centrality of this issue for the implementation of these best practice recommendations is acknowledged.

Relationships: Many residents have ongoing relationships with family members and significant others. These relationships are critical in meeting the mental health

needs of residents and should be supported by interactions with facility personnel who communicate respect and visitor friendly policies (e.g., appropriate visiting hours, availability of beverages policy, etc.).

Family members and significant others should be supported in finding mutually acceptable and beneficial ways to participate in the care of their loved one. Participation can occur at different levels. For example, some family members may choose to be involved in hands on care (e.g., assisting at mealtime), while others may choose to participate in Family Councils which provide feedback to the facility from a family perspective regarding care and services.

Some family members and others will require emotional support from staff. Acknowledgement of the individual's personal knowledge of a family member/significant other, and consulting and sharing information (as appropriate) communicates respect. More formal assistance and referrals for support should be made available when necessary.

In addition, the interactions between residents and staff are of crucial importance in meeting the mental health needs of residents. For many residents, the care providers are their primary source for social and emotional contact. Interactions that are based on knowledge of each resident's individuality, that communicate respect, warmth, and care, will promote mental health.

Milieu: The LTC facility is a closed community, housing a unique population. A core assumption of these Guidelines is that the milieu (social and physical environment) is an important determinant in psychosocial and health outcomes for residents in LTC homes, and can promote or undermine mental health.

Part 2: General Care

2.1 Introduction

In these Guidelines, we consider care for residents living in LTC homes within two broad categories: 1) aspects of activities of daily living (ADL); and 2) symptom and disease management. This section will focus on research related to providing care to residents in the context of ADLs, such as physiological needs (i.e., eating, drinking, toileting and sleep), and hygiene. Subsequent sections address assessment and interventions focused on symptom management (depressive and behavioural symptoms).

Respect for culture, equity, social justice, relationships and personal dignity is essential for promoting mental health in LTC facilities (Government of Canada, 2005). Relationships, service-delivery models, management of the physical and social environment, and effective caregiving strategies are primary vehicles for mental health promotion for seniors who reside in LTC homes.

In order to create a culture that supports interventions and care that is truly effective, the following tenets must be realized in practice: relating effectively, knowing the person, recognizing retained abilities, and manipulating the social and physical environment (McGilton et al., 2006; RNAO, 2004).

Relating effectively to residents entails that the care provider remain with the resident during the care episode, alter the pace of care by recognizing the person's rhythm and adapting to it, and focus care beyond the task (Brown, 1995; McGilton, 2004).

Excellence in care can be achieved when knowing the person and their individual preferences, and constantly evaluating and adapting to the person's response, guides all interactions/ interventions.

Knowing the person involves becoming familiar with the individual and gaining knowledge of their life. At times this may involve partnering with families to gain this knowledge. A person's unique identity will influence what activities/interventions are personally appealing or pleasant. As well, to know the person involves understanding his/her culture, and how that person views and responds to the world.

Care must also focus on recognizing the person's retained abilities in self-care and the social, interactional and interpretative domains. Recognition of retained abilities creates a basis for the prevention of excess disability and enhancing the success of the care intervention (Dawson et al., 1993). An assessment of a resident's retained abilities will influence the amount of care the care provider must deliver to compensate for functional

losses. The physical environment is an important consideration in this assessment as some settings are designed to compensate for waning abilities, while others exacerbate the challenges (Teresi et al., 2000).

Although most research regarding provision of care in LTC homes has focused on those with dementia, we believe that the same tenets can/should be taken into consideration where physical and mental illnesses are the primary diagnoses that underlie the need for facility-based LTC.

Residents with physical and mental illnesses experience a variable constellation of symptoms, which include memory loss, disorientation, reduced ability to perform activities of daily living such as eating, bathing and dressing, as well as psychiatric and behavioural symptoms such as agitation, depression and psychosis (Qizilbash et al., 2002; Tilly & Reed, 2004).

Often non-verbal behaviours, such as agitation, restlessness, aggression and combativeness, are an expression of unmet needs (e.g., hunger, thirst, pain, or toileting need). Care providers should try to identify when this is the case and address the unmet needs. The general care recommendations presented herein focus on preventing and minimizing behavioural symptoms that are a reflection of unmet needs. These recommendations are offered with the caveat that careful attention to assessing and understanding the factors contributing to behavioural presentations, (e.g., mental health problems and disorders, as well as other physical disorders and illnesses) is paramount.

The non-pharmacological care strategies included in this section have been found to reduce behavioural symptoms in residents. Successful implementation of these recommendations involves a careful assessment of remaining abilities and knowledge of the persons' preferences. The way in which the care provider relates to the resident when implementing the recommendations and the care provider's ability to manipulate the social and physical environment as required, will enhance the possibility of achieving the desired outcomes.

2.2 General Care: Discussion and Recommendations

This first recommendation provides an essential underpinning to all those that follow.

Recommendation: General Care – Family Involvement

Encourage and support the involvement and education of the family in the institutional life of the older resident, including decision-making processes, as appropriate. [C]

Families have been involved in the caregiving process throughout history but it is only recently that practitioners have begun to recognize and formalize the role of the family in the context of healthcare (Byers, 1997). Family members often struggle with their change of roles after admission of a relative. An evidence-based protocol for creating partnerships with family members has been created by Kelley and colleagues (1999). Family involvement in care for persons in LTC homes includes a program for families and caregivers in partnership with healthcare providers (Kelley et al., 1999). The ultimate goals of the protocol are to provide quality care for persons with dementia and to assist family members through support, education, and collaboration, to enact meaningful and satisfactory care-giving roles regardless of setting.

Although most networks are comprised of family, friends and neighbours also provide support. Further research is required to elicit definitive patterns of interaction, expand nurses' understanding of client-family caregiver-nurse collaboration, and to facilitate optimal outcomes for residents (Dalton, 2003).

Recommendation: General Care – Care Plan

Individualize care plans, with due consideration to best practice guidelines and recommendations. [D]

Best practice guidelines and recommendations, such as those herein, provide a generic framework for developing care plans that address a resident's needs. We stress, however, the importance of the individual, client centered care, respect for diversity, involvement of families, and the centrality of care providers training and skill.

Best practice recommendations should be implemented in light of personal information provided by residents so that staff can develop and refine approaches to care based on an understanding of the resident's usual life rhythms, lifestyle, culture, and preferences. Such approaches are important in preventing behavioural symptoms that may result from fear, frustration or disruption of continuity and familiarity. *Pre-admission information that includes medical history, social history, personal likes/dislikes, what is important to the resident, and history of behavioural symptoms and approaches used, should be available to LTC staff to optimize individualized care.*

Staff should establish a relationship with an older resident that reflects the older individual's physiological, psychosocial, developmental, and spiritual needs. Staff, when presented with a social history (as compared to only medical history), are able to maintain more neutral, appropriate attitudes towards challenging LTC facility residents (Hillman et al., 2001). This information is also helpful in understanding the genesis of problem behaviours and developing alternative activities for residents with dementia (Sloane & Gleason, 1999).

Anderson and colleagues (1998), in an examination of the interventions used by aides working with aggressive residents with dementia, noted that effective approaches were based on the following four factors: the aides' interpersonal experiences and values; attitudes; team work; and knowing the residents. Based on these factors, the aides were able to connect and provide individualized caring interventions that maintained safety, dignity and support.

Recommendation: General Care – Communication

Implement strategies to promote communication between care providers and residents. [B]

To determine the need for strategies to promote communication between care providers and residents:

- Use the tools provided by the Hartford Institute for Geriatric Nursing to assess language abilities (i.e. receptive and expressive abilities) (Frazier-Rios & Zembruski, 2004).
- Use the Interactional Abilities Assessment Guide by Dawson and colleagues (1993) to assess the resident's communication abilities.
- Assess normal aging processing, such as hearing and vision loss, that affect residents' ability to communicate effectively.
- Assess the resident's language abilities and communication patterns with assistance from family members or significant others.

Care providers may use the following communication strategies. Consideration should be given to an individual's disease progression & retained abilities, as discussed.

- Care providers should identify themselves at each interaction.
- Residents may use personalized memory books consisting of biographical, orientation cues and daily schedule information. Books may contain pictures, instructions on bathing, and pages targeting behaviour problems (Burgio et al., 2001).
- Care providers should use the following communication tips: short simple sentences; speak slowly; ask one question or give one instruction at a time; approach the resident slowly and from the front; establish and maintain eye contact; eliminate distractions (TV, radio); avoid interrupting the resident and allow the resident plenty of time to respond; use "yes/no" rather than open ended questions; encourage circumlocution (ask resident to "talk around" or search the word he/she is looking for); repeat messages using the same wording; and paraphrase repeated messages (Small et al., 2003).
- Supplement verbal communication with gestures or cues when possible.
- Listen to residents' experiences and acknowledge their emotions, while providing understanding and non-judgement of their choices.

Recommendation: General Care – Dressing

Develop an individualized approach when assisting the resident with dressing. [B]

- Use enhanced instruction, rehearsal and cueing when residents are unable to follow 3 step commands (Cohen-Mansfield, 2005).
- When verbally communicating with a resident, remember that how you relate to the resident, that is, with a calm tone and respect, will also influence the success of the interaction (McGilton, 2004).
- When communication barriers exist, take responsibility for developing a communication plan that makes the resident an informed partner in the provision of care. The plan can include verbal and non-verbal approaches.
- Interpreters can be very helpful in situations where a language barrier exists. When using interpreters to communicate with residents, care providers need to be sensitive to the issues surrounding interpretation (i.e., the need for the interpreter to treat obtained information as confidential and the need for the interpreter to repeat everything the resident and the care provider say, without omissions).

Cognitive and behavioural impairments in persons with dementia affect their ability to communicate. The above interventions aim to match care provider and resident conversation to the resident's comprehension level (Hall & Buckwalter, 1991).^{iv} Burgener and colleagues (1992) identified care providers' behaviours associated with dysfunctional elderly behaviour. There was a relationship between care providers who were relaxed and smiled and seniors with calm and functional behaviours. Use of memory books by persons with dementia has been found to increase informativeness and accuracy of their conversations, and decrease ambiguity and restlessness (Bourgeois & Mason, 1996). Use of communication aids can compensate for cognitive declines and decrease disruptive behaviour and agitation. Communication training for care providers improves communication behaviours and is sustainable over time when combined with a staff motivational system (Burgio et al., 2004).^{ia}

It is not hard to understand why residents who are not getting their basic needs met might express their discomfort through behavioural symptoms. Priorities for future research should include exploring methods of helping residents improve their eating, drinking, dressing, bathing, toileting and sleeping patterns (Tilley & Reed, 2004). What is known in these areas is addressed below.

Researchers also need to focus on the process of implementing best evidence into practice. There is an absence of research that conveys the processes of knowledge exchange and utilization within the specific context of LTC homes. It would be premature to apply the findings of studies conducted in acute care settings with unregulated care providers until it has been established that such translations are empirically sound.

To determine what abilities are retained and which will need support for each resident:

- Assess all residents who have a diagnosis or suspected diagnosis of dementia.
- Assess residents' retained abilities using a scale such as the *Abilities Assessment Instrument (AAI)* (Dawson et al., 1998). The AAI assesses self-care, social, interactional, and interpretive abilities of the resident, which will influence their ability to participate in dressing.

Self care abilities threatened in the presence of dementia and that will interfere with dressing include: voluntary movement of the fingers and arms; spatial orientation, finding one's way; initiation and follow-through related to object cues; and purposeful movements. Furthermore, abilities that are threatened in the presence of dementia have been presented by Dawson and colleagues (1993)^{iv} and relate to self-care, social, interaction and interpretive domains.

Specific dressing assistance interventions will depend on the retained abilities and may include:

- Provision of appropriate cues, such as left/right verbal cues. For example, while dressing, ask the client to place his/her right foot in the shoe.
- Presenting clothing in sequential order enhances residents' independence (Day et al., 2000).ⁱⁱⁱ
- Avoid stimulation of primitive reflexes, for example, the grasp reflex.
- When assisting with dressing, offer one-step instructions.
- If possible, stand the person to prosthetically use gravitational force to extend the residents' fingers in order to ease putting on shirts, dresses, or jackets.
- Use task simplification to focus on abilities and assist with performance of ADLs (Beck et al., 1997; Wells & Dawson, 2000).ⁱⁱ

An effective intervention to increase active participation in ADLs and decrease disruptive behaviours in severely cognitively impaired and functionally disabled LTC facility residents has been demonstrated (Rogers et al., 1999).^{iv} The approach was based on knowledge of the resident and on detailed professional, functional and communication assessments. It was successful in reducing disruptive behaviours (in spite of demanding increased performance) because only realistic performance demands were made and communicated in the mode each particular resident could understand.

An abilities focused approach to care-giving may prevent excess disability from arising, thus preserving residents'

quality of life (Dawson et al., 1993).^{iv} Residents receiving morning care from care providers using an abilities focused approach demonstrated increased interaction behaviours with care providers, decreased levels of agitation, and a higher level of function (Wells & Dawson, 2000).ⁱⁱ

Recommendation: General Care – Bathing

Develop an individualized protocol for each resident that minimizes negative affect and promotes a sense of well being during bathing. [A]

All individuals residing in LTC homes can benefit from a bathing intervention. To reduce agitation, irritability, and anxiety, consider the following interventions while bathing residents:

- Cover the resident with a towel to maintain warmth and privacy (Sloane et al., 2004).
- Provide the resident with choices.
- Use products recommended by family.
- Use no rinse soap (Sloane et al., 2004).
- Modify the shower spray.
- Provide the resident with information before and during the bath (Mickus et al., 2002).
- Reassure the resident that he/she is safe and not alone (Mickus et al., 2002).
- Begin bathing the least sensitive area first and save washing hair for last.
- Use distraction techniques (e.g., calming music, singing, talking, food or sweets).
- Follow bathing with a light massage with lotion.
- Document bathing practices accepted by the resident in the care plan so other care providers will follow the same routine.
- Frequency of behaviours may be reduced during bathing when residents listen to their favorite music (Clark et al., 1998).

Bathing care using a person-centered approach is associated with a decrease in agitation and other behavioural responses (Sloane et al., 2004).^{ib} The potential for bathing to be a calming and relaxing intervention with the ability to derive a feeling of well being, in addition to personal hygiene and infection control, is supported in the literature (Sloane et al., 2004).^{ib} Bathing also involves multiple stressors to which agitation and other behavioural symptoms are normal responses (Schindel Martin, 1998 as cited in Thiru-Chelvam, 2004). Reactions occur because of perceived threat, unfamiliar activities, recall of previous trauma, unpleasant sensations (hot/cold), feeling confused, misinterpretation of staff as being harmful or not helpful, unwanted touch or invasion of personal space, frustration from declining abilities, and/or lack of attention to personal needs (Thiru-Chelvam, 2004). Using a bathing technique guided by privacy, reassurance, information, distraction, and evaluation reduces irritability and anxiety (Mickus et al., 2002).ⁱⁱⁱ

Recommendation: General Care – Activities

Consider the need to pace activities that residents are involved in throughout the day. [B]

To determine which residents are likely to benefit from activity pacing:

- Assess cognitive dysfunction with a validated tool such as the *mini-mental status examination* (MMSE) (Kovach et al., 2004). Pacing of care-giving activities is effective with persons who have mild to moderate dementia, as determined by the MMSE (Kovach et al., 2004).
- Measure arousal and agitation every 15 minutes from 8:00 am to 8:00 pm on one day (Kovach et al., 2004).
- Measurement should not be collected on a day when potentially confounding events occur. For example bath days, monthly doctor visit days, and days in which a test or exam is scheduled.
- Residents are considered to have an arousal imbalance if the daily activity schedule involves an awake arousal state that is sustained for longer than 1.5 hours. This definition is based on two pilot studies, one based in a LTC setting and one in an acute care setting (Kovach & Schlidt, 2001; Kovach & Wells, 2002).
- Substantial arousal imbalance involves arousal states of 2.5 hours or more.

Once a resident is recognized as having periods of arousal imbalance, specific periods of imbalance between sensory-stimulating and sensory-calming activities can be identified. Interventions may include arranging a new daily activity schedule that:

- Contains fewer periods of arousal imbalance (ideally none). This may involve the need to add or delete some activities from the resident's schedule.
- Is feasible considering the resident's needs and preferences

After implementing the new activity schedule, the resident's arousal and agitation state should be assessed every 15 minutes for 12 hours.

Pacing activities decreases agitation and supports sensoristaxis (an optimal level of sensory variation) in persons with dementia (Kovach et al, 2004),^{iiia} and has the potential to reduce agitation and other behaviours in all LTC residents. An overwhelming influx of external stimuli and lack of physical and social environmental stimuli are both risk factors for agitation in persons with Alzheimer's Disease and Related Disorders (McGonigal-Kenney & Schutte, 2004).^{iiia}

Recommendation: General Care - Mealtime

Consider the need to develop mealtime care-giving activities to enhance nutrition and prevent behaviours that interfere with nutritional and social needs. [D]

To determine which residents are likely to benefit from mealtime care-giving activities:

- Assess residents' ability to initiate sequence and follow through with complex or simple actions and the ability to use tools.
- These abilities can be reliably assessed using the *Feeding Abilities Assessment (FAI)* (LeClerc et al., 2004).^{11a}
- Administer the *FAI* during the resident's usual mealtime and location.
- Assess vision, hearing and oral health.
- Assess changes in medications that may alter taste.
- Assess for adequate pain management.

Interventions may include:

- Keeping dining area quiet and small, with activity at a minimum.
- Keep lighting high without glare.
- Food presentation is important. Food needs to be appealing, easily identified, look and smell good. Do not serve pureed food to residents who can manage finger foods (Wells & Dawson, 2000).
- Open cartons, unwrap food, and remove bones.
- Dishes should be of contrasting colors and stand out from the table/tablecloth.
- Cut food prior to serving.
- Cue resident manually (Roberts & Durnbaugh, 2002).
- Space residents away from others.

- Cue and re-cue resident to pace eating, and to chew food (Roberts & Durnbaugh, 2002).
- Remove nonfood items.
- Promoting social stimulation at meal times, including familiar tablemates (Roberts & Durnbaugh, 2002).
- Check toileting needs before bringing resident to dining room or feeding.
- Offer alternatives.
- Alter diet consistency.
- Use calming music.

Feeding interventions increase the potential that residents will be as independent as possible, move towards goals that reduce excess disability, and enhance resident abilities (Roberts & Durnbaugh, 2002).^{11b} Malnutrition is a common challenge for LTC residents. Those with cognitive impairment are at the highest risk. In residents with Alzheimer's disease, challenging mealtime behaviour can interfere with successful self-feeding (Roberts & Durnbaugh, 2002).^{11c} Appropriate mealtime assessment and correct, consistent staff intervention can address the success of the individual resident's ability to eat independently, thus enhancing quality of life (Roberts & Durnbaugh, 2002).^{11d} A common correlation exists between malnutrition and dementia (Watson, 1989). Inadequate pain management may contribute to agitation, inability to concentrate on the task, and not wanting to eat.

Part 3: Assessment of Mental Health Problems and Mental Disorders

3.1 Introduction:

This section of the Guidelines provides recommendations for the assessment of depressive and behavioural symptoms that represent mental health problems and mental disorders. The clinical activities of formal assessment and treatment should occur within the context of the principles, assumptions, and general care-giving recommendations described in *Part 1: Background Information* and *Part 2: General Care*.

For the purpose of this guideline, assessment is understood as a comprehensive, ongoing process that includes: (1) screening to detect depressive and behavioural symptoms; (2) structured, goal-directed investigation to identify factors precipitating, maintaining and exacerbating identified symptoms; (3) interpretation of assessment findings, *including formal diagnosis where appropriate*; and (4) ongoing evaluation of clinical outcomes and treatment effectiveness to determine the need for reassessment and re-conceptualization of contributing factors.

Assessment protocols are understood as problem-oriented frameworks that guide thinking about an issue. Protocols structure the decision-making process so that the assessment process is efficient, yet comprehensive enough to lead to an appropriate care plan for an individual resident. The *interRAI* suite of tools (including the *Minimum Data Set [MDS]*) provides an example of a research-based, standardized approach to the development of an assessment protocol (Morris et al., 1995).

In this section, it is assumed that a facility adheres to an overarching assessment protocol or model, as opposed to allowing assessment activities to occur on an ad hoc, inconsistent basis. The recommendations speak to the recommended components of the assessment protocol. It is recognized that implementation of an assessment protocol in any given instance should be client-centred and clinically sound. It is also recognized that the assessment protocol must be integrated with both site-specific policies and statutory requirements. Levels of staffing, skill mix and credentials necessary to implement an effective assessment protocol are beyond the scope of these recommendations. However, their importance is acknowledged herein, as in other guidelines (AGS/AAGP, 2003; RNAO, 2003).

These recommendations specifically refer to assessment of behavioural and depressive symptoms in the context of LTC homes. The reader is also referred to the companion guidelines, *National Guidelines for Seniors' Mental Health: Assessment and Treatment of Depression, Assessment and Treatment of Delirium, and The Assessment of Suicide Risk and Prevention of Suicide* (CCSMH, 2006).

3.2 Assessment: Discussion and Recommendations

Recommendation: Assessment – Screening

The facility's assessment protocol should specify that screening for depressive and behavioural symptoms will occur both in the early post-admission phase and subsequently, at regular intervals, as well as in response to significant change. [C]

The purpose of screening is to detect symptoms that warrant further detailed investigation, as well as to further prevention efforts.

The relative cost/benefits of different timelines for initial and repeat screening activities have not been established empirically. However, there is an emerging consensus in the clinical practice literature on the importance of both initial screening in the early post-admission phase and subsequently, repeat screening at regular intervals, as well as in response to significant change. The American Medical Directors Association (AMDA) (2003) depression guidelines recommend formal screening on admission and subsequently in response to significant change. The American Geriatrics Society and American Association of Geriatric Psychiatry (AGS/AAGP) (2003) guidelines on depressive and behavioural symptoms, recommend that residents should be screened for depressive symptoms in the first four to six weeks post admission to a LTC facility, and subsequently at least every six months. The *MDS* protocol, which includes depressive and behavioural symptoms, prescribes initial screening during the first two weeks post admission, quarterly re-assessment, and ad hoc screening in response to significant change (Morris et al., 1995).

We believe that assessments for residents in LTC homes should occur as soon as possible after admission. Furthermore, serial assessments of cognitive symptoms over time are recommended as they may indicate the efficacy of interventions, or changing medical conditions (APA, 2000a; McCusker et al., 2003; Rapp, 1998).¹¹ Continuous monitoring and evaluation of interventions will enable the team to respond appropriately to the changing needs of the resident, and to adjust interventions accordingly.

Screening Tools and Scales

Recommendation: Assessment – Screening

A variety of screening tools that are appropriate to the setting and resident population should be available to facilitate the screening process. [D]

LTC homes should make available a selection of symptom rating scales that are appropriately matched to the characteristics of the residents, setting characteristics, and the facility's resources.

Screening tools to detect *depressive symptoms* include:

- **Geriatric Depression Scale (GDS)** (Yesavage et al., 1982-3)
- **Cornell Scale for Depression in Dementia (CSDD)** (Alexopoulos et al., 1988)
- **Centre for Epidemiological Studies of Depression Scale (CES-D)** (Radloff, 1977)
- **Minimum Data Set (MDS)** (Morris et al., 1995).

The *GDS* and *CES-D* are self-report scales, while the *CSDD* and *MDS* rely on proxy report. Differences in both administration (self- versus proxy-report) and the constructs measured by each scale may contribute to different findings obtained with various scales. For example, a recent comparison between the *GDS* and *MDS* among nursing home residents found these scales were uncorrelated, however each measure demonstrated adequate internal consistency and reliability (Koehler et al., 2005).ⁱⁱⁱ More research is needed on the profiles of depression in LTC residents, and which aspects of depression are best measured by which scales.

Standardized scales for the screening of *behavioural symptoms* in residents within LTC homes include:

- **Brief Agitation Rating Scale (BARS)** (Finkel et al., 1993)
- **Cohen-Mansfield Agitation Inventory (CMAI)** (Cohen-Mansfield and Billig, 1986)
- **Minimum Data Set (MDS)** (Morris et al., 1995).

As well, numerous behavioural rating scales have been designed specifically for use with residents who have *dementia* (for recent reviews, see Hemels et al., 2001; Hyer et al., 2005): These include, for example:

- **Behaviour Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD)** (Reisberg et al., 1987).
- **Behavioural Symptoms Scale for Dementia (BSSD)** (Devand et al., 1992)
- **Neuropsychiatric Inventory (NPI)** (Cummings et al., 1994)
- **Pittsburgh Agitation Scale (PAS)** (Rosen et al., 1994).

Behavioural scales, like scales to measure depressive symptoms, also include different combinations of behaviours and use different metrics to quantify frequency, duration and severity. Many require trained raters and as of yet, there is no "gold standard" (Teri et al., 2005).

Recommendation: Assessment – Screening

Tool selection should be determined by the characteristics of the situation (e.g., resident capacity for self-report, nature of the presenting problem). [D]

Screening tools should be selected on the basis of clinical utility. It may not be appropriate to attempt to use a self-report tool with a resident who is confused or non-verbal. Conversely, it is not appropriate to omit self-report for reasons of expedience.

Clinical situations may require, in addition to or in place of standardized scales, the use of customized behavioural observation techniques to adequately screen for atypical or complex behaviours. It is beyond the scope of these Guidelines to review the extensive field of behaviour observation and analysis (often referred to "ABC" for Antecedents-Behaviour-Consequences) in detail. However, it is acknowledged that this is a well-established approach to behaviour assessment in a variety of settings, including LTC homes that should be within the armamentarium of the interdisciplinary team (for example see, Gibson et al., 1999; Lundervold & Lewin, 1992; Rewilak, 2001).

The screening protocol should endorse use of more than one measure (e.g., self-report and proxy-report, as well as behavioural observation) where this information would be helpful in meeting the purpose of the screening assessment (i.e., to detect symptoms that warrant further detailed investigation, as well as to further prevention efforts).

Recommendation: Assessment – Screening

Screening should trigger detailed investigation of depressive and behavioural symptoms under defined circumstances. [D]

Screening should trigger implementation of a structured, goal-directed detailed investigation of depressive and behavioural symptoms under defined circumstances. Triggering algorithms are empirically grounded in the case of protocols such as the *MDS* (Morris et al., 1995). The AMDA (2003) depression guidelines describe a clinical-decision making process based on risk assessment for determining when symptom monitoring versus active investigation is indicated. The assessment protocol should include a triggering/decision-making algorithm to guide clinicians in determining when further detailed investigation is required.

Recommendation: Assessment – Detailed Investigation

Core elements of a detailed investigation should include history and physical exam, with follow up laboratory and psychological investigations, investigations of the social and physical environment, and diagnostic tests as indicated by the results of the history and physical exam, and treatment history and response. [C]

The purpose of the detailed investigation is to identify factors, including diagnosable conditions, that precipi-

tate, maintain and exacerbate identified symptoms, in the interests of symptom management, disease control, enhanced quality of life, and/or problem prevention.

The detailed investigation should be premised on an understanding that symptoms may reflect a variety of underlying biopsychosocial conditions and social and physical environmental issues, and should take into account strengths and protective factors as well as problems. There is no definitive research literature on how best to structure the detailed investigation of behavioural and depressive symptoms in the LTC setting as a cost-effective, integrated, interdisciplinary, goal-directed activity (Hyer et al., 2005).

Clinical practice guidelines identify several of the factors that can contribute to the onset or worsening of depressive or behavioural symptoms, and as such the following should be included as core elements in the investigation protocol (AGS/AAGP, 2003; AMDA 2003)ⁱⁱⁱ:

- History (including a formal ABC analysis of the antecedents and consequences of target behaviours where appropriate)
- Physical exam
- Follow up investigations as indicated by the findings of the history and physical exam
- Follow up investigations may include laboratory tests, psychological assessments, investigations of the social and/or physical environment and diagnostic tests
- Treatment history and response

Other factors hypothesized to contribute to the observed symptoms should also be included in the investigation. Flexibility and clinical judgment are required as these factors will vary on a case-by case basis. Behavioural observations, self-report data, concerns expressed by others and psychometric data should direct the assessment focus. *However, a high index of suspicion should be maintained to ensure less obvious factors or diagnoses that are contributing to the precipitation, maintenance and exacerbation of depressive and behavioural symptoms are not missed.* Among the medical and psychological conditions and disorders that may need to be included in the detailed investigation are (AGS/AAGP, 2003):

- Pain
- Constipation or fecal impaction
- Infections
- Injury
- Dehydration
- Nutritional problems
- Delirium
- Dementia
- Psychosis
- Depression/Mania
- Suicide Risk (refer to the *National Guidelines for Seniors' Mental Health: The Assessment of Suicide Risk and Prevention of Suicide*, CCSMH 2006)

- Anxiety disorders
- Sleep disorders
- Substance or medication abuse or withdrawal
- Hearing and vision problems
- Worsening of chronic medical conditions
- Recent onset of new medical condition
- Medications that have the potential to alter cognition or mood

Social factors and features of the physical environment that may need to be assessed include:

- Changes in social or family situation
- New stressors or situational factors such as changes in staff
- Availability of social and meaningful activities
- Availability of positive (reinforcing) experiences
- Deviations from normal life patterns, preferences, and autonomy
- Factors in the physical environment, such as a change in room

Recommendation: Assessment – Detailed Investigation

It is important to consider all contributing factors. Investigation of potentially contributing factors (e.g., delirium, chronic pain) should refer to clinical practice guidelines for these conditions where available. [D]

Where available, investigation of potentially-contributing factors should refer to clinical practice guidelines for specific conditions. For example, where pain is suspected as a contributing factor, clinical practice guidelines on pain assessment should guide assessment (e.g., AGS, 2002; AMDA, 1999). If delirium is suspected refer to the *National Guidelines for Seniors' Mental Health: The Assessment and Treatment of Delirium* (CCSMH 2006).

Recommendation: Assessment – Detailed Investigation

Diagnosis and differential diagnosis should be an assessment objective where appropriate. [D]

Diagnosis and differential diagnosis should be an assessment objective where appropriate (AMDA, 2003).^{iv} Depressive and behavioural symptoms may reflect psychiatric diagnoses commonly seen in residents of LTC homes (e.g., dementia, delirium, depression, mania, dysthymia, insomnia, anxiety, schizophrenia, personality disorders) and/or medical diagnoses that are also common in this population (e.g., diabetes, respiratory diseases, arthritic and rheumatic diseases, cardiac disorders, stroke, chronic pain disorders). Assessment should be guided by awareness and understanding of relevant diagnostic criteria (for example, the *DSM IV-TR* criteria differentiates major depressive disorder, adjustment disorder with depressed mood, or mood disorder due to a general medical condition; APA, 2000a).

It is acknowledged that depressive symptom presentation in older adults may be atypical, subsyndromal or difficult to distinguish from other comorbid conditions. It is important to realize that it may be difficult to determine the exact cause of depressive and behavioural symptoms, especially in situations involving complex comorbidity or atypical presentations (Lo & Bhanji, 2005). Behavioural analysis (ABC) can be particularly useful as an assessment tool leading to case conceptualization (rather than formal diagnosis) in these complex situations.

Recommendation: Assessment – Detailed Investigation

The end point of a detailed investigation should be the determination of the need for, type, and intensity of treatment. [D]

The end point of a detailed investigation is the determination of the need for, type, and intensity of treatment. The assessment protocol should explicitly include expectations for data synthesis and interpretation. It is not beneficial to overemphasize the measurement aspects of the assessment process, while short-changing data analysis, synthesis and interpretation (AGS/AAGP, 2003). The need for, type, and intensity of treatment is determined on the basis of consideration of all relevant assessment information. This includes medical and physical findings, psychosocial findings, ratings on validated scales, behavioural analysis, risk assessment, formal diagnosis where appropriate, and the perspectives and wishes of individual residents and their families.

As a component of determining the need for treatment, it is important that all residents with significant depressive symptoms are assessed for suicide risk (refer to The National Guidelines for Seniors' Mental Health: The Assessment of Suicide Risk and Prevention of Suicide, CCSMH 2006).

It is beyond the scope of these Guidelines to propose criteria for interdisciplinary team composition within LTC homes that will ensure the appropriate skill set for comprehensive assessment, or to address the challenges of resource availability. However, the centrality of this issue for implementation of these best practice recommendations is acknowledged.

Recommendation: Assessment – Ongoing Evaluation

The treatment plan should specify the timeline and procedure for ongoing evaluation of clinical outcomes and treatment effectiveness. [D]

The treatment plan should mandate ongoing evaluation of clinical outcomes and treatment effectiveness. Ongoing evaluation is essential in the LTC setting, given the frailty of the population, high prevalence of comorbid conditions, and potential for rapid decline when symptoms escalate. As well, ongoing evaluation is essential to ensure intervention objectives stay current with client-centred goals.

Recommendation: Assessment – Ongoing Evaluation

Ongoing evaluation should include history and assessment of change in the target symptoms. [D]

Assessment of the effectiveness of pharmacological and nonpharmacological treatment for depressive and behavioural symptoms should include history and assessment of change in the target symptoms (AGS/AAGP, 2003).^{iv}

Recommendation: Assessment – Ongoing Evaluation

Assessment of change should include quantification, preferably with the same tool that was used pre-intervention. [D]

Assessment of the effectiveness of pharmacological and nonpharmacological treatment for depressive and behavioural symptoms should include the same instrument(s) used for initial screening/assessment (AGS/AAGP, 2003).^{iv}

Recommendation: Assessment – Ongoing Evaluation

Unexpected clinical outcomes and treatment effects should trigger re-assessment and potentially re-conceptualization of the factors precipitating, maintaining and exacerbating depressive and behavioural symptoms. Potential adverse reactions to treatment should be evaluated. [D]

We believe that unexpected clinical outcomes, including potential adverse reactions to treatment, and treatment effects that are less than expected should trigger re-assessment and potentially re-conceptualization of the factors precipitating, maintaining and exacerbating depressive and behavioural symptoms.

There is a need for more clinical research on depressive and behavioural symptoms in LTC settings, and to identify various profiles and symptom constellations that warrant different intervention and prevention efforts (AGS/AAGP, 2003). Research on the expected trajectories of change, where different combinations of factors contribute to different symptom profiles and where different treatments are implemented, would advance our ability to match residents to interventions in the LTC setting.

Part 4: Treatment of Depressive Symptoms and Disorders

4.1 Introduction

We emphasize that we are aware that LTC homes differ in their resources, and that residents differ in the extent to which family and friends are available and willing to be involved in care. This section takes an aspirational approach to the task of identifying psychological and social interventions that can contribute to the treatment of depressive symptoms of residents in LTC homes, recognizing that the reality of what is available may differ. *It is always important to consider the potential benefit of both nonpharmacological and pharmacological interventions.*

4.2 General Treatment Planning: Discussion and Recommendations

The reader is directed to the companion *National Guidelines for Seniors' Mental Health: The Assessment and Treatment of Depression (CCSMH 2006)*, as a supplement to this section.

Recommendation: Depressive Symptoms: General Treatment Planning

Consider type and severity of depression in developing a treatment plan. [B]

Guideline developers have identified several factors that should guide treatment decisions: severity, persistence of symptoms, previous history, patient/family preferences, and coexisting medical conditions (AGS/AAGP, 2003; AMDA, 2003; APA, 2000b; Baldwin & Wild, 2004; National Advisory Committee on Health and Disability, 1996; RNAO, 2004, 2003). Treatment decisions are made both in the development of the treatment plan and on an ongoing basis as a component of response monitoring.

The AGS/AAGP (2003) guidelines indicate that agreement has not been reached regarding the use of pharmacological or nonpharmacological treatment alone for residents with *major* depression. As a result, their recommendation was that both modalities should be employed simultaneously as the first-line treatment. Other guidelines state that in addition to this combined approach, either treatment modality can be used alone to treat *mild nonpsychotic major depression* (Alexopoulos et al., 2001; AMDA, 2003). Thus, the AMDA (2003) guidelines suggest that for less severe forms of major depression, a single treatment modality can be a treatment of choice. The AMDA (2003) guidelines also indicate when the combined approach might be desirable. For example, it is suggested that patients with low self-esteem may benefit more from the combined approach than from a single treatment modality (AMDA, 2003). Concerning more *severe major depression*, use of pharma-

cological treatment concurrently with psychotherapy seems to be a preferred treatment choice (Reynolds et al., 1999; Thompson et al., 2001).

In all cases, it is important to obtain a history of bipolar illness as the treatment of bipolar depression will likely require the use of a mood stabilizer (see *Section 4.4, Pharmacological Interventions*). Psychotic symptoms associated with depression rarely respond to antidepressant medication alone and usually require the addition of an antipsychotic medication.

Key recommendations from other guidelines that have informed the present process are summarized below with respect to treatment of major and minor depressive disorder, as defined by *DSM IV-TR* (APA, 2000a).

For residents who have a *MINOR* depressive disorder:

- Observation of the residents for up to 2 months without specific treatment may be appropriate (AGS/AAGP, 2003).^{iv}
- The length of the observational period may range from 2 weeks to 2 months, but not more than 2 months (AGS/AAGP, 2003; AMDA, 2003).^{iv} (Note: We believe that psychosocial interventions to promote quality of life should continued to be provided during the monitoring period)
- Alternatives for treatment include psychosocial interventions (e.g., education, participating in social events), psychotherapy, and pharmacological interventions (AGS/AAGP, 2003; AMDA, 2003).^{iv}
- Treatment choice depends upon factors such as severity, previous history, persistence of symptoms, and patient or family preference (AGS/AAGP, 2003).^{iv}
- First-line treatment for residents with minor depression includes psychosocial interventions and psychotherapy (AGS/AAGP, 2003; Alexopoulos et al., 2001).^{iv}

For residents who have a *MAJOR* depressive disorder:

- Psychosocial interventions, psychotherapy, pharmacological interventions with or without psychotherapy are effective in treatment of *mild* nonpsychotic major depression (AGS/AAGP, 2003; AMDA, 2003; RNAO, 2004).^{ib}
- Pharmacological interventions plus psychotherapy, ECT and pharmacological interventions are treatment modalities for *severe* nonpsychotic major depression (AMDA, 2003).

4.3 Psychological and Social Interventions: Discussion and Recommendations

The psychosocial and social interventions described in this section are grouped based on the effects or goals

they hope to achieve. This approach reflects recent understanding that “common factors” underlie various interventions, and a focus on these might be the best strategy for further development in this field (Niederehe, 2005). Given the complexity and uniqueness of LTC settings, we have included interventions that would be delivered by mental health clinicians, as well as other care providers, family, and volunteers.

This review is not limited to those studies that had some elements of randomization. It is encouraging to see that there have been some recent, methodologically more sophisticated studies indicating efficacy of psychosocial and social interventions. However, the number of studies is still very small with non-cumulative findings, which, in turn, impacted our ratings of the recommendations.

Interventions are often multifaceted and integrate several different strategies. For example, an active treatment group might have received a treatment consisting of socialization, individualized activity, and participation in pleasant events. Consequently, it is difficult to determine the treatment’s active ingredients. On the other hand, Teri and colleagues (2005) have argued that interventions in LTC settings should be multimodal in order to address the progressive deterioration of function and complexity of problems in LTC residents.

Recently, there have been several attempts to develop multimodal and manual-based treatments for depression and dementia in LTC settings. For example, Carpenter and colleagues (2002) reported a small sample, pilot study in which they tested a new model for brief individual psychotherapy with the goals to restore, empower and mobilize depressed LTC residents with mild to moderate dementia. Their approach integrated the elements of humanistic and cognitive therapies with a consideration of the role that the LTC milieu can play in the onset of depression. Hyer and colleagues (2005) have noted that this might be a direction in which the development of psychosocial and social interventions will proceed in the future.

Recommendation: Depressive Symptoms: Psychological and Social Interventions

Social contact interventions, including interventions that promote one’s sense of meaning, should be considered where the goal is to reduce depressive symptoms. [C]

Social contact interventions are interventions that expose LTC residents to elements in the social environment, including family, paraprofessionals, and staff. The purpose of the intervention is to improve mood in persons with depression by providing an increased sense of mastery over the social and physical environment and decreasing social isolation (Kasl-Godley & Gatz, 2000).

Interactions can be in-vivo and simulated. For example, weekly visits (for 24 weeks) by a volunteer and a nurse were associated with a significant decrease in depression (McCurren et al., 1999).^{1b} Playing a family member’s recording of the resident’s best-loved memories over the telephone was associated with significantly increased interest in people and activities and decrease in sad moods (Camberg et al., 1999).^{1b} In addition, providing support by facilitating affective expression, helping patients to feel understood, offering empathy and success experiences, and imparting optimism may be effective in treating depressed LTC residents (Alexopoulos et al., 2003; AMDA, 2003).^{1v}

The following social contact interventions can be used in the treatment of depression:

- Provision of meaningful activities, such as sheltered workshops, volunteering, spiritual care, or activities that maintain residents’ past roles (AGS/AAGP, 2003: Minor depression^{1v}; Major depression)^{1b}
- Supervised peer volunteer programs (AGS/AAGP, 2003: Minor depression^{1v}; Major depression)^{1b}
- Simulated presence (Camberg et al., 1999)^{1b}
- Supportive therapy (Alexopoulos et al., 2003; AMDA, 2003)^{1v}

Recommendation: Depressive Symptoms: Psychological and Social Interventions

Structured recreational activities should be considered where the goal is to engage the resident. [C]

A variety of recreational activities, with care providers’ participation or supervision, appear to be associated with a decrease in depression and an increase in activity levels.

Engaging LTC residents in individualized, recreational activities can have positive short-term effects. Long term effects are less clear at this point. Interventions are usually multimodal and combine either the recreational and socialization components (Buettner & Fitzsimmons, 2002; Rosen et al., 1997) or recreational and skill training elements (Teri et al., 2003).^{1b} If these activities are to be implemented by family members or other care providers, it is important that they receive skill training in behavioural strategies that would target potential problem behaviours that might arise with increased activity (Teri et al., 2005).^{1v} Studies showing positive results had interventions in place for at least three months, with care providers delivering or supporting interventions on a daily basis.

The following activities have been suggested:

- Intensive two-week wheelchair-biking in tandem (Buettner & Fitzsimmons, 2002; Fitzsimmons 2001; University of Iowa Gerontological Nursing Interventions Research Center, 2003)^{1b}

- Variety of recreational activities selected according to each resident's choice (Rosen et al., 1997)^{1b}
- Care provider supervised exercise program (Teri et al., 2003)^{1b}

**Recommendation: Depressive Symptoms:
Psychological and Social Interventions**

Psychotherapies should be considered where the goal is to reduce depressive symptoms. [B]

There is some evidence for the effectiveness of the following psychotherapies as a component of treatment of depressive symptoms in LTC residents:

- Behavioural therapy (Lichtenberg, 1998)^{1b}
- Group cognitive-behaviour therapy (AGS/ AAGP, 2003; Hyer et al., 2002)^{1b}
- Individual cognitive-behaviour therapy (AGS/ AAGP, 2003)^{1v}
- Interpersonal therapy (Hinrichsen, 1999)^{1v}
- Problem-solving therapy (Alexopoulos et al., 2003; Hussian & Lawrence, 1981)^{1b}
- Brief dynamic psychotherapy

The research literature on the use of specialized psychotherapies in LTC is fairly sparse, but encouraging. What is common across the studies is that participants were selected according to their depressive symptoms rather than on the basis of clearly identified psychiatric syndromes. Evidence for behavioural therapy, group cognitive-behavioural therapy and problem solving therapy comes from several studies, all of which had some elements of randomization. Individual cognitive-behavioural therapy, interpersonal therapy, and brief dynamic therapy have not been subjected to empirical evaluation in LTC settings (visit the *National Guidelines for Seniors' Mental Health, The Assessment and Treatment of Depression (CCSMH 2006)* for more detailed descriptions of these interventions). Given the encouraging results regarding their use in treatment of late-life depression, we support the use of these therapies in LTC settings. The adaptation of these therapies to LTC settings rests on the assumption that they will be administered by clinicians sensitized to the vulnerabilities and frailties of LTC residents (Niederehe, 2005).^{1v}

Currently, there is very little data to guide clinicians in their treatment decisions. One study demonstrated that *problem-solving therapy (PST)* might be a suitable therapy for depressed older adults with impairment in executive functions (i.e., lack of interest in activities, psychomotor retardation, reduced insight, suspiciousness, and significant behavioural disability; Alexopoulos et al., 2003). It has been noted that impairment in executive functions can increase the risk of a poor and unstable response in older adults to a variety of antidepressants for major depression (e.g., Alexopoulos et al., 2000). It is encouraging that *PST* therapy can reduce depressive

symptoms in this patient population. Further research is needed to replicate Alexopoulos and colleagues' (2000) finding. In this study, *PST* had several therapeutic ingredients:

- Teaching skills for improving ability to deal with specific everyday problems and life crises
- Exposure to positive events
- Addressing interpersonal sensitivity
- Addressing deficits in communication

**Recommendation: Depressive Symptoms:
Psychological and Social Interventions**

Self-affirming interventions (e.g. validation and reminiscence therapies) should be considered where the goal is to increase sense of self-worth and overall well-being [C]

Validation and reminiscence therapies are examples of self-affirming interventions. These two interventions can potentially affect one's sense of identity and general well being in addition to remediating mood and behavioural problems.

Validation therapy is based on the general principle of validation (i.e., the acceptance of the reality and personal truth of another's experience). Evidence regarding the efficacy of validation therapy is inconclusive. Various observational studies have reported some positive effects of validation (e.g., increase in amount and duration of interactions during validation groups) (Babins et al., 1998; Bleathman & Morton, 1996), whereas others reported null findings (Scanland & Emershaw, 1993). In a recent meta-analytic review, it was noted that there was insufficient evidence from randomized trials to draw any conclusions regarding validation therapy (Neal & Briggs, 2003).^{1a} Some potential benefits that have been noted by the proponents of this approach may be due to the extra attention given to individuals and/or participation in structured activities (Neal & Briggs, 2003). Future research in this area should evaluate a wider range of outcomes, such as well being, quality of life, and its potential beneficial effects for care providers utilizing this approach.

Reminiscence therapy involves the discussion of past activities, events and/or experiences usually with the aid of prompts such as photographs, music, and other familiar items from the past. There is some evidence that reminiscence is effective in reducing depressive symptoms in older people (Bohlmeijer et al., 2003).^{1a} There are several forms of this therapy including, life review and general reminiscence. Life review involves evaluation of personal memories with the support of a therapeutic listener, usually on a one-one basis. General reminiscence aims at enhancing positive, enjoyable interactions, usually in a group context (Woods et al., 2005). There is some empirical support for the following interventions:

- Group reminiscence (Goldwasser et al. 1987)^{ib} (Jones, 2003)^{ib}
- Individual reminiscence (Haight et al., 1998)^{ib} (Wang, 2004)^{ib}

Comparisons across several studies conducted in LTC settings are difficult, partly because they explored various treatment modalities. The results are mainly encouraging and suggest that a more structured approach (e.g., individualized life review) may be more effective than open-ended recollection (Hyer et al., 2005).^{iv}

4.3.1 Comorbid Dementia

Recommendation: Depressive Symptoms: Psychological and Social Interventions

Consider the impact of comorbid dementia in developing a treatment plan. [C]

Given the high prevalence of comorbid dementia in the LTC population, the issue of treating depression in this context warrants special consideration. We recommend that explicit consideration be given to the impact of comorbid dementia in the implementation of psychological and social interventions for the treatment of depressive symptoms in LTC residents. *The resident's capacity to understand and willingly engage in the intervention should be carefully considered in order to avoid unintended outcomes such as increased agitation or distress.*

Professionals involved in the treatment of depressed LTC residents who also have dementia, must adapt their approaches to fit the older person's specific characteristics and living context (American Psychological Association, 2004). The progressive nature of dementia requires a flexible approach to the treatment of depression (Teri et al., 2005).^{iv} For example, what works at a certain point for a particular resident might cease to be effective as cognitive deterioration continues.

To effectively use non-pharmacological interventions with people who have dementia, cognitive status, previous experience with therapists, and the availability of therapists have to be taken into consideration (AMDA, 2003).^{iv} Pre-existing rapport between a health-care provider and a resident can be crucial in determining the efficacy of these interventions (AMDA, 2003).^{iv}

In this section, we restricted our review to those studies with a primary focus on depression in residents who also have dementia. Commonalities across these various interventions are: individualization of strategies, one-on-one treatment modality (with the exception of group cognitive-behaviour therapy), multi-component character, and teaching care providers to provide treatment to LTC residents (Teri et al., 2005).

The following nonpharmacological interventions may be appropriate for treatment of depression for residents with dementia. We stress that the appropriateness and effectiveness of different interventions will vary for different stages in the progression of dementia and individualized assessment is essential. The reader is also referred to the best practices literature on dementia for a more extensive consideration of psychological and social interventions (e.g., Doody et al., 2001).

- *Social Contact Interventions*
Supportive therapy (AMDA, 2003)^{iv}
Simulated presence (Camberg et al., 1999)^{ib}
- *Structured Recreational Activities*
Recreational biking (Buettner & Fitzsimmons, 2002)^{ib}
- *Specialized Therapies*
Group cognitive-behavioural psychotherapy (AGS/AAGP, 2003)^{ib}
Individual cognitive-behavioural psychotherapy (AGS/AAGP, 2003; Scholey & Woods, 2003)^{iv}
- *Behavioural Intervention*
Care provider training in behavioural management (AMDA, 2003; Beck et al., 2002; Proctor et al., 1999)^{ib}
Care provider training in effective verbal and nonverbal communication (McCallion et al., 1999)^{ib}
- *Self-Affirming Interventions*
Reminiscence (Woods et al, 2005^{ib}; Brooker & Duce, 2000)ⁱⁱⁱ

Koder and colleagues (1996) indicated that an adapted version of cognitive-behaviour therapy for persons with depression and dementia should include the following components:

- Challenge the assumption "I am too old to change"
- Greater emphasis on activities, behaviours and less on cognitive restructuring
- Provision of printed handouts, slower pace and a greater reworking of issues
- Group work
- Attention to common themes of aging (e.g., low self-esteem and anxiety about future)
- Life-review and reminiscence
- Involvement of significant others
- Gradual termination and follow-up sessions

Scholey and Woods (2003) added other factors to the list, such as an awareness of real social, economic and physical limitations, a more flexible approach to session timing, a more active role from the therapist, and consideration of ageism in therapy.

Woods and colleagues' (2005) review of randomized trials indicated some potential benefits of reminiscence therapy in dementia, such as improvement in cognition and mood. The reviewers encouraged its further development and evaluation. Further studies might focus on determining clearer treatment protocols, and exploring a potential interaction between severity of depression and different treatment modalities (group versus individual versus with caregiver).

A methodological limitation of many studies conducted in this area is sampling strategy. Frequently, participants were not selected according to a specific clinical pattern of depression, but based on their scores on various rating scales. Thus, less is known about the efficacy of psychosocial interventions in treating clearly defined psychiatric syndromes. Many studies did not include follow-up assessments leaving the question of long term effects unanswered. Also, it is less clear whether and how these interventions influence other outcomes such as functional dependence or compliance with self-care (Hyer et al., 2005).

4.4 Pharmacological Interventions: Discussion and Recommendations

As noted above, a full set of recommendations can be found in the *National Guidelines for Seniors' Mental Health: Assessment and Treatment of Depression (CCSMH 2006)*. Some basic recommendations are provided below.

Recommendation: Depressive Symptoms: Pharmacological Interventions

First line treatment for residents who meet criteria for major depression should include an antidepressant. [A]

Although the AGS/AAGP (2003) consensus statement endorses the above recommendation it also supports the belief that for major depression, cognitive behavioural psychotherapy can also be effective. A 2003 literature review found 7 studies regarding antidepressants in LTC homes (Snowden et al., 2003). There were 2 placebo-controlled trials – one found nortriptyline to have greater efficacy than the placebo and the other found no difference between sertraline and the placebo (Katz et al., 1990; Magai et al., 2000).^b Since that review, 4 clinical trials have been published including a comparison of sertraline and venlafaxine, a placebo controlled trial of paroxetine (negative result) and open label trials of mirtazapine (orally disintegrating tablets) and high dose sertraline (Burrows et al, 2002; Oslin et al, 2003; Roose et al, 2003; Weintraub et al., 2003). The AGS/AAGP (2003) consensus statement also includes antidepressants as an option for treating minor depression (in addition to non-pharmacological interventions) depending on factors such as severity, previous history and resident/family preference.

Note: It is important to combine psychosocial interventions with antidepressants whenever possible to obtain optimal outcomes.

The companion *National Guidelines for Seniors' Mental Health: The Assessment and Treatment of Depression (CCSMH 2006)* recommend the following with respect to antidepressants:

- Clinicians should start at half of the dose recommended for younger adults and ensure that therapeutic doses are reached as quickly as possible.
- Dosage should be increased every 5-7 days if tolerated, until there is clinical improvement or the average therapeutic dose has been reached. This will usually take less than one month.
- Dosage should be increased beyond average therapeutic dose if there is no clinical improvement after 3-6 weeks of treatment and there are no limiting side effects.
- In the absence of clinical response, an adequate antidepressant trial usually consists of a 4 to 8 weeks trial at maximum tolerated dose or maximum recommended dose.

Visits to monitor antidepressant response should include, at a minimum, supportive psychosocial interventions and monitoring for worsening of depression and suicide risk. *The companion National Guidelines for Seniors' Mental Health: The Assessment and Treatment of Depression (CCSMH, 2006) provides detailed recommendations regarding side effects, titration, augmentation and switching antidepressants.*

Recommendation: Depressive Symptoms: Pharmacological Interventions

Appropriate first line antidepressants for LTC home residents include selective serotonin reuptake inhibitors (e.g., citalopram and sertraline), venlafaxine, mirtazapine, bupropion. [B]

Selection of an appropriate antidepressant medication for LTC home residents should be based on: a) previous history and experience of the resident; b) other medical comorbidities; c) side effect profiles of the antidepressants; d) potential drug-drug interactions. The recommendation above was endorsed by the AMDA guideline (2003).

Residents who start on serotonergic antidepressants (e.g., SSRIs or venlafaxine) should be monitored for common side effects such as nausea and diarrhea, as well as less common ones, such as hyponatremia (leading to fatigue, malaise, delirium) or serotonin syndrome (with agitation, tachycardia, tremor, hyperreflexia). Venlafaxine can cause increased blood pressure. There is an increased risk of seizures with higher dosages of bupropion and weight gain is more common with mirtazapine.

There is some evidence supporting the use of moclobemide as a first line agent, although this antidepressant is not commonly used in Canada. Mirtazapine is available as a rapidly dissolving wafer (Remeron-RD) which may be useful for residents with swallowing problems. Escitalopram (the S-enantiomer of citalopram) has recently become available in Canada and may be a useful SSRI in seniors.

Tricyclic antidepressants (TCAs) may be used as second line agents on occasion. Nortriptyline and desipramine may be better tolerated than other tricyclics. Blood levels of these agents may be helpful and should be used before concluding that the drug is not effective (AMDA, 2003). TCAs should not be used in residents with significant cardiac conduction abnormalities. Clinicians should monitor for postural hypotension, cardiac symptoms and anticholinergic side effects.

**Recommendation: Depressive Symptoms:
Pharmacological Interventions**

For residents with major depression with psychotic features, a combination of antidepressant and antipsychotic medications is appropriate. [B]

The AGS/AAGP (2003) consensus statement endorsed the above recommendation. Older adults with psychotic depression who fail to respond to medication may respond to a course of ECT (Flint and Rifat, 1998).^{1b}

**Recommendation: Depressive Symptoms:
Pharmacological Interventions**

Residents with a first episode of major depression responding well to antidepressant treatment should continue on full dose treatment for at least 12 months. Residents who have had at least one previous episode of depression should continue with treatment for at least two years. [A]

There is some debate regarding the minimum recommended period for continuation therapy with antidepressants. The CPA/CANMAT guidelines (2001) suggest a minimum of 2 years in older persons. Alexopoulos and colleagues' (2001) Expert Consensus Guidelines on pharmacotherapy of depression endorse a minimum of 12 months. For recurrent depression, we recommend a minimum of 2 years treatment and in some cases with multiple serious recurrences lifelong treatment is recommended.

**Recommendation: Depressive Symptoms:
Pharmacological Interventions**

The treatment of depressed residents with a history of bipolar mood disorder should include a mood stabilizer such as lithium carbonate, divalproex sodium or carbamazepine. [B]

Antidepressants can precipitate a manic or hypomanic episode in residents with a history of Bipolar Mood

Disorder. This is less likely to occur if they are on a mood stabilizer. Detailed recommendations regarding the use of lithium carbonate can be found in the *National Guidelines for Seniors' Mental Health: The Assessment and Treatment of Depression (CCSMH 2006)*.

**Recommendation: Depressive Symptoms:
Pharmacological Interventions**

Residents with severe depression not responding to medications should be considered for a trial of electroconvulsive therapy (ECT). (These residents will likely require transfer to a psychiatric facility) [B]

A review of issues related to ECT in the LTC setting was written by Espinoza (2004).^{1b} The author reported that on their ECT service almost 70% of patients admitted from LTC homes had a moderate or marked response to ECT. The barriers to treatment were also highlighted including a lack of psychiatric consultants and limited access to inpatient units where ECT is provided.

**Recommendation: Depressive Symptoms:
Pharmacological Interventions**

Psychostimulants (e.g., methylphenidate) may have a role in treating certain symptoms which are commonly associated with depression (e.g., apathy, decreased energy). [C]

There is some literature suggesting benefits from psychostimulants for individuals with depression and apathy states following stroke and other neurological disorders (Grade et al., 1998).^{1b}

Depression frequently occurs in residents with coexisting dementia. Antidepressants are recommended in this population when the depression is persisting. Some good evidence for the efficacy of antidepressants comes from placebo-controlled trials of Citalopram (Nyth et al., 1992)^{1b} and Moclobemide (Roth et al., 1996)^{1b} although not all participants in these trials suffered from dementia.

A Cochrane Review (Bains et al., 2002) concluded that available evidence offers only weak support for the contention that antidepressants are an effective treatment for older adults with depression and dementia. The authors also state: "it is not that antidepressants are necessarily ineffective but there is not much evidence to support their efficacy either" (Bains et al., 2002). However for persisting depression associated with dementia we believe that treatment should include an antidepressant.

Part 5: Treatment of Behavioural Symptoms

5.1 Introduction

As in *Part 4: Treatment of Depressive Symptoms and Disorders*, we emphasize that we are aware that LTC homes differ in their resources, and residents differ in the extent to which family and friends are available and willing to be involved in care. This section takes an aspirational approach to the task of identifying psychological and social interventions that can contribute to the treatment of behavioural symptoms of residents in LTC homes, recognizing that the reality of what is available may differ.

Psychological and social interventions should generally be utilized before initiating pharmacological treatment, however in urgent situations, or when symptoms are severe it is appropriate to initiate pharmacological and nonpharmacological interventions together. Residents with moderately severe symptoms may also benefit from medication. It is worth noting that there is very limited research evaluating the effectiveness of combined interventions. However, there is some evidence that individualized treatments that combine pharmacological and non-pharmacological interventions (e.g., providing structure, scheduling events to adjust for individual residents' needs, involving relatives in the treatment planning) can lead to a significant reduction in agitation (Hincliffe et al., 1995; Rogers et al., 1999; Matthews et al., 1996). A randomized controlled trial to test the hypothesis that individually tailored psychosocial, nursing and medical interventions would reduce the frequency and severity of behavioural symptoms in nursing home residents with dementia found improvement in target behaviours in both groups. However, benefits were greater in the intervention group (Opie et al., 2002).

Brody and colleagues (2003a) provided a useful 7-tiered model of behavioural and psychological symptoms of dementia (BPSD). They suggested that about 50% of individuals with dementia would have mild or moderate BPSD with approximately 10% having severe BPSD and less than 1% very severe symptoms. Cases of extreme violence are fortunately rare. The model is intended to provide the basis for comprehensive planning of service delivery.

5.2 Psychological and Social Interventions: Discussion and Recommendations

Recommendation: Behavioural Symptoms: Psychological and Social Interventions

Social contact interventions should always be considered, especially where the goal is to minimize sensory deprivation and social isolation, provide distraction and physical contact, and induce relaxation. [C]

Social contact interventions are interventions that purposely expose the resident to elements in the social environment, including family, friends, staff, and pets. The goal is to promote interaction and/or stimulation. Interventions may be in vivo, virtual, active, passive, video, audio, personally relevant or generic. There is some research support for one-to-one interactions, simulated interactions (e.g., family generated videotapes and audiotapes and generic videotapes) and pet therapy (e.g., real and artificial).

One-to-one interactions may be effective in preventing and managing agitated behaviours (McGonigal-Kenney & Schutte, 2004).ⁱⁱⁱ One-to-one interactions may include activities such as talking, singing, hands-on activities, exercising, touch, food, and theme bags (McGonigal-Kenney & Schutte, 2004).ⁱⁱⁱ Providing direct stimulation for approximately 30 minutes appears to have some beneficial effects (Cohen-Mansfield & Werner, 1997).ⁱⁱⁱ Additionally, it has been suggested that one-to-one interactions may be more effective for those who are verbally agitated, and less cognitively and functionally impaired (Cohen-Mansfield & Werner, 1997).ⁱⁱⁱ

Simulated interaction interventions involve using video and/or audio equipment to simulate interactions with significant others. Family generated videos characterized by expressions of love and respect with a focus on past events appear to produce more favorable effects compared to generic videos aimed at inducing relaxation and reminiscence (Hall & Hare, 1997; Werner et al., 2000). Cognitively impaired females with verbally agitated behaviours tend to benefit most from watching family generated videos (Werner et al., 2000).ⁱⁱⁱ More structured guidelines on how to prepare family videos are needed. Werner and colleagues (2000) noted that the relatives involved in preparation of family videos felt overwhelmed at times. Further research can identify the reasons behind these reactions, which, in turn, can help in the preparation of videos.

There is anecdotal evidence supporting the use of companion animals to enhance well being in residents with dementia. For example, Churchill and colleagues (1999)ⁱⁱⁱ concluded that the presence of a dog enhanced socialization (as evidenced by increased verbalization, smiling and looking), and decreased the amount of agitated behaviour in residents with dementia. Libin and Cohen-Mansfield (2004)^{iiia} reported that interacting with both a robotic pet and a plush toy cat can decrease agitation, and increase pleasure and interest in elderly persons with dementia. Further studies regarding potential benefits of robototherapy (i.e., artificial companions) are needed. It is difficult to make generalizations based on a single pilot study in this area.

It remains unclear what are the active ingredients of social contact interventions. An important issue to consider is whether and how much these interventions satisfy social needs of LTC residents as opposed to their needs for stimulation or distraction.

**Recommendation: Behavioural Symptoms:
Psychological and Social Interventions**

Sensory/relaxation interventions (e.g., music, snoezelen, aromatherapy, bright light) should be considered where the goal is to reduce behavioural symptoms, stimulate the senses and enhance relaxation. [B/D]

Sensory/Relaxation interventions encompass a wide range of interventions with varying levels of evidence. Interventions and their accompanying strengths of recommendations are as follows:

Music [B]

Different forms of music have been proposed as interventions for agitated behaviours (e.g., active versus receptive; individualized versus standard classical relaxation music; music during bathing or meals versus individual relaxation sessions). In a recent review of randomized controlled trials, the authors concluded that there was no substantial evidence to either support or discourage the use of music therapy for treatment of aggression, agitation, and wandering in older people with dementia (Vink et al., 2003)^{1b}. However, other reviewers who did not limit themselves to randomized trials commented that individualized music could have beneficial, short-term effects on agitation (Cohen-Mansfield, 2001; Snowden et al., 2003)^{1a}.

It has been suggested that each music session should last approximately 30 minutes and occur prior to the resident's usual peak level of agitation (e.g., Gerdner, 2000)^{1a}. Additionally, it is important to monitor all residents closely, particularly those with comorbid psychological or medical problems and impaired hearing. More refined studies regarding the effects of music therapy for people with dementia are needed (Vink et al., 2003). In particular, studies are needed on the medium and long term effects of this therapy.

Snoezelen [B]

Snoezelen, an intervention that combines soft music, aromatherapy, textured objects, favorite food, and colored lighting in a designated space (usually a room within the facility), is intended to promote a failure-free, relaxing and enabling physical environment (Chitsey et al., 2002). In a review of randomized controlled trials, it was noted that snoezelen could have positive immediate effects on apathy, restless and repetitive behaviours (Chung & Lai, 2002)^{1a}. However, the effects seem to be confined to the snoezelen sessions or the period immediately after the sessions.

Some short-term beneficial effects of snoezelen on mood and agitation have been noted. However, there is considerable variation between individuals in their reactions to snoezelen (Baillon et al., 2004)^{1b}. A number of research questions regarding snoezelen need to be addressed. It is still unclear how frequent and how long snoezelen sessions should be, at what stage of dementia residents can benefit most, and whether there are long term effects. An important question to consider is whether snoezelen promotes a therapeutic relationship between residents and staff (Chung & Lai, 2002).

Aromatherapy [C]

Aromatherapy, either alone or in combination with other sensory stimulating activities, has been proposed as another sensory intervention. It was observed that a topical application of *Melissa officinalis* to the residents' face and both arms twice a day led to a reduction in agitation and increase in overall well-being as indicated by a decrease in social withdrawal and increase in time engaged in constructive activities (Ballard et al., 2002)^{1a}. Lavender oil administered in an aroma stream produced a modest reduction in agitated behaviours in residents with severe dementia (Brooker et al., 1997^{IV}; Holmes et al., 2002^{1a}).

In studies exploring the efficacy of aromatherapy, aromatherapy was used in conjunction with prescribed psychotropic medications. Examining whether aromatherapy alone can be a viable treatment alternative would be a next step. It is interesting to note that people with dementia with Lewy bodies (DLB) showed no evidence of improvement while being treated with aroma streams of lavender oil (Holmes et al., 2002). Larger studies, with different forms of dementia and with different administration techniques are needed.

Bright Light Therapy [D]

Degenerative changes in the suprachiasmatic nuclei (SCN) of the hypothalamus appear to be associated with circadian disturbances in the elderly, particularly in those with dementia (Forbes et al., 2004). A number of studies explored whether these changes may be reversed by stimulation of the SCN with light. In a meta-analytic review of randomized trials, it was concluded that there was insufficient evidence to support the efficacy of bright light therapy (BLT) in managing sleep, agitation, cognition and mood in dementia, and that further studies were warranted (Forbes et al., 2004)^{1a}.

Similarly, in her review of both observational and randomized studies, Cohen-Mansfield (2001) noted that the results were inconclusive as some studies reported no effects; some reported significant decreases whereas some reported trends. Given the mixed results, the heterogeneity of participants within and across the studies, and a lack of consensus regarding the timing of BLT, further studies regarding the efficacy of BLT are needed. In

many studies, participants were not homogenous in terms of their diagnoses and severity of dementia. As Forbes and colleagues (2004) indicated, responses to BLT may depend on the area of the brain that has been affected by pathological changes. Additionally, Ancoli-Israel and colleagues (2003) suggested that persons with mild to moderate Alzheimer's disease may benefit from BLT more than those with severe Alzheimer's disease. Further studies that address the intensity and frequency of BLT are needed, as well as studies that explore the timing and length of BLT interventions.

In the meantime, BLT should be administered cautiously in older adults with dementia, particularly when agitation increases or delusions develop during BLT (Schindler et al., 2002).^{iv} It has been suggested that blurred vision (e.g., due to cataracts) should be ruled out because it could contribute to misjudgments while administering BLT (Schindler et al., 2002).^{iv}

BLT can be administered using the following protocols:

- "Brite-Lite" boxes (2,500 to 10,000 lux) placed one meter from the person. Light can be administered for approximately 2 hours in the morning (e.g., Ancoli-Israel et al., 2003; Lovell et al., 1995).
- Increase the light intensity used during meal times to enhance visual stimulation (Koss & Gilmore, 1998).

White Noise [D]

Exposure to any low intensity, slow, continuous, rhythmic, monotonous sound (i.e., white noise) has been proposed as an auditory intervention for agitated behaviours. Evidence for its efficacy is still inadequate. White noise might have potential to reduce verbal aggression (Burgio et al., 1996).ⁱⁱⁱ

Massage and Touch Interventions [D]

Studies exploring the effects of massage and touch interventions produced mixed findings. A ten-minute therapeutic touch administered during a three-day treatment period led to a significant decrease in vocalization and pacing with a sustained treatment effect over 1 to 1.5 days (Woods & Dimond, 2002).^{ib} This intervention involved directing attention inward on the part of the provider, and performing gentle movements as described in the "Ten-minute therapeutic touch protocol" (Quinn, 1984). However, Snyder and colleagues (1995)^{ib} reported no consistent effects using a similar ten-minute therapeutic touch protocol and a five-minute hand massage protocol. On the other hand, Kim and Bushmann (1999)ⁱⁱⁱ reported a significant decrease in agitation during a five-minute hand massage treatment. A combination of music and massage therapy did not seem to be related to a decrease in agitation (Snyder & Olsen, 1996).ⁱⁱⁱ

Recommendation: Behavioural Symptoms: Psychological and Social Interventions

Structured recreational activities should be considered where the goal is to engage the resident. [C]

Structured activities with individuals or groups may involve manipulation, exercise, outdoor walks, multi-sensory stimulation, pet therapy, and one-to-one supervised gardening. Engaging residents during idle times can reduce agitation (Aronstein et al., 1996).^{iv} Outdoor walks can be designed to meet physical and social needs and reduce wandering. Physical exercise appears to be related to a reduction in repetitive, and disruptive activities (Beck et al., 1992).^{iv} Structured activities include:

Recreational Activities [C]

- Sorting (e.g., puzzles, cards, clothing).
- Sewing (e.g., fabric squares, lacing tiles).
- Sound and music programs.
- Manipulative activities (e.g., bead mazes, flexible cubes).
- Cooking program, herb garden program, horticultural activities (Cohen-Mansfield, 2005).
- Montessori-based activities (Schneider & Camp, 2002)
- Activity aprons (e.g., aprons that have buttons, zippers and other articles sewn on) (Cohen-Mansfield, 2005).
- Outdoor gardening with one-to-one supervision (Cohen-Mansfield & Werner, 1998; McGonigal-Kenney & Schutte, 2004).ⁱⁱⁱ

Walking Activities [C]

- Walking programs, outdoor walks, and group walks through public areas of the LTC facility (Cohen-Mansfield, 2005).
- Residents in walking groups could walk significantly longer compared to baseline performance (Tappen et al., 2000).

Physical Activities [C]

- Physical group activity programs designed to improve strength and flexibility.
- Both high and low level mobility residents can benefit from mobility programs comprising of warm up/stretching, walking, lower body strengthening, upper body strengthening, balance, and cool down/stretching (Lazowski et al., 1999).^{ib}
- See McGonigal-Kenney and Schutte's (2004) guidelines for specific protocols regarding two physical exercise programs.

Recreational interventions and other structured activity programs may be helpful in the management of agitated behaviours in residents with Alzheimer's disease (AD) and other dementias (Aronstein et al., 1996).^{iv} Agitated behaviours decreased when residents were involved in activities and not restrained (Cohen-Mansfield & Werner,

1998). A physical training program improves mobility, flexibility and static balance in residents with dementia who are also at risk for falls (Toulotte et al., 2003).^{ib} Holmberg (1997)ⁱⁱ found a 30% reduction in aggressive events in LTC homes on days when residents were taken for group walks compared to days without walks. Structured activities are an important component of psychosocial rehabilitation, which, as related to seniors' mental health, promotes optimal performance in areas of cognition, interpersonal skills, self-care, leisure, and utilization of community resources.

**Recommendation: Behavioural Symptoms:
Psychological and Social Interventions**

Individualized behaviour therapy should be considered where the goal is to manage behaviour symptoms (e.g., contextually inappropriate, disturbing, disruptive or potentially harmful behaviours). [C]

Behaviour therapy, grounded in a belief that all behaviour has meaning, focuses on intra-individual (i.e., biopsychosocial) and extra-individual factors (e.g., contextual, social) in assessment and management. This approach (which emphasizes least restrictive and least intrusive interventions and individualized care planning) has been found useful in reducing both incidences of resident injuries and stress among staff (Gibson & Bol, 1996).

The selection of specific behavioural interventions should be based on a solid behaviour analysis (ABC). Moreover, it is important to note that the process of behaviour analysis (i.e., describing the relationships among antecedents, behaviours and consequences) can in itself have beneficial effects, often through the changes in staff behaviour that follow from increased understanding (Rewilak, 2001).

Support regarding the efficacy of behavioural interventions comes mainly from case-reports and observational studies (Cohen-Mansfield, 2001; Landreville et al., 1998; McGonigal-Kenney & Schutte, 2004; Snowden et al., 2003).ⁱⁱⁱ These studies targeted a variety of problematic behaviours (such as noisemaking, wandering, ADL, bathing, inappropriate toileting, sexual behaviour, verbal and physical aggression). Behavioural interventions in many studies were individualized and led to a reduction in targeted, problematic behaviours. The following interventions were supported:

Differential reinforcement

- Reinforce either quiet behaviour or behaviour that is incompatible with the inappropriate behaviour.
- Compliments, soothing speech, praise, and food may serve as rewards.
- The principle of successive approximation toward the desired behaviour can be employed (i.e., reinforce small steps towards the desired behaviour).

Differential reinforcement appears to be an effective intervention for both aggressive and verbally agitated behaviours (Landreville et al., 1998).^{iv}

Stimulus control

- Establish an association between a stimulus and a particular behaviour (e.g., a large stop sign with stopping and walking away).
- Verbal and/or physical prompts can be used to help residents attend to various stimuli (e.g., Hussian, 1988).ⁱⁱⁱ
- Making antecedents more salient or making associations between various consequences and antecedents more salient seems to be effective with residents exhibiting physically nonaggressive behaviours such as wandering (Cohen-Mansfield, 2001; Landreville et al., 1998).^{iv}

Several case and small-sample studies reported that extinction (i.e., attention given in the absence of undesirable behaviours) might not be an effective strategy in itself (Bourgeois & Vézina, 1998; Heard & Watson, 1999; Hussian, 1983).^{iv} It has been suggested that instruction in positive self-statements, in addition to extinction, might produce desirable effects (Cohen-Mansfield, 2001).^{iv}

Two recent randomized controlled trials produced some equivocal results regarding the effectiveness of behavioural management techniques (Gormley et al., 2001; Teri et al., 2000). These studies evaluated the programs within which family caregivers used behavioural techniques to manage aggressive and agitated behaviours in older adults with dementia. Gormley and colleagues (2001)^{ib} reported a trend toward a reduction in aggression for participants in a behaviour management training group (BMT). BMT training in this study consisted of avoidance or modification of precipitating and maintaining factors, use of appropriate communication (e.g., calm approach, simple one-step commands), validation (e.g., acceptance of false statements) and distraction. Teri and colleagues (2000)^{ib} demonstrated a comparable modest reduction in agitation in older adults with AD receiving haloperidol, trazodone, BMT, and placebo. BMT consisted of structured sessions that provided information about AD to care providers, strategies for decreasing agitated behaviours, in-session and out-of-session assignments, and watching a video training program. However, the treatment protocols were not individualized and did not target specific needs and problems of the participants.

Behavioural programs typically are multimodal. For example, DeYoung and colleagues (2002) evaluated the impact of a behaviour management program for care providers of persons with dementia on aggression, agitation, and disruptive behaviour. In a 28-hour education program, staff learned how to utilize behavioural strategies and strategies for making the social and physical

environment more responsive to residents' needs. They were also taught the importance of knowing the resident as a unique individual and of consulting with other staff to help with care. Participation in the program was associated with a reduction in aggression, agitation, and other disruptive behaviours. The interventions that were effective in reducing the behaviours included verbal distraction, time out, activity diversion, getting to know the person well, and managing the social and physical environment.

Ledoux and colleagues (2000) created an aggressive and disruptive behaviour management program which integrated clinical, health, and workplace safety considerations. The authors concluded that an individualized diversionary strategy, utilizing historical and procedural memories, combined with modifications to the physical and social environment, was effective in reducing aggressive and disruptive behaviour during basic care. A diversion was created by drawing attention to something that was significant to the resident to prevent him/her from focusing on the care. A second diversion strategy involved triggering an automatic gesture to prevent the resident from becoming agitated (e.g., asking the resident to wash his/her hands while the nurse washes the genital region).

There is a need for a greater number of randomized trials that would address the efficacy of behavioural interventions. Studies addressing what benefits specific BMT components add above and beyond the benefits that regular contacts, support and encouragement provide are needed. Additionally, studies that address longer follow-up periods are warranted.

5.3 Pharmacological Interventions: Discussion and Recommendations

Before pharmacological treatment is considered it is important to attempt to use nonpharmacological interventions. However, in some urgent situations it may be necessary to introduce pharmacological and nonpharmacological interventions simultaneously. Two recent comprehensive reviews provide details of the evidence regarding the efficacy of pharmacological treatments of behavioural symptoms associated with the dementias (Sink et al., 2005; Weintraub & Katz, 2005).

Recommendation: Behavioural Symptoms: Pharmacological Interventions

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

Several factors make LTC homes a unique setting for prescribing medication. These include the extreme frailty of the population, the complexity of the social institution, limited physician availability, care team members impor-

tant contributions to treatment decisions, the potential role of the pharmacist, limited staffing levels, and staff education. Individuals over the age of 65 are particularly vulnerable to drug-related problems because of co-morbidities, physiological changes of ageing, and the large number of medications they are prescribed. Thus, there are several general principles that should be considered in the development of any care plan that includes medication. These are discussed in *Appendix B*.

Recommendation: Behavioural Symptoms: Pharmacological Interventions

Appropriate first line pharmacological treatment of residents with severe behavioural symptoms with psychotic features includes atypical antipsychotics. [B] Atypical antipsychotics should only be used if there is marked risk, disability or suffering associated with the symptoms. [C]

It is important to be aware that certain behaviours are unlikely to respond to medications (e.g. wandering, exit-seeking behaviour, and excessive noisiness).

The best evidence from placebo-controlled trials in LTC homes would support the use of atypical antipsychotics (Brodsky et al., 2003^b; De Deyn et al., 2004, 1999; Katz et al., 1999; Street et al., 2000).^b The AGS/AAGP (2003) consensus statement endorsed the above recommendation. The studies above compared olanzapine or risperidone to placebo. A recent Cochrane review of the effectiveness of atypical antipsychotics for the treatment of aggression and psychosis in Alzheimer's disease examined 16 placebo controlled trials and included 9 in the meta-analysis (Ballard & Waite, 2006). The review concluded that risperidone and olanzapine are useful in reducing aggression, and risperidone reduces psychosis. Despite the modest efficacy, the significant increase in adverse events suggested that neither risperidone nor olanzapine should be used routinely to treat residents with aggression or psychosis unless there is marked risk or severe distress. Three other recent reviews provide useful perspectives (Carson et al., 2006; Lee et al., 2004; van Iersel et al., 2005).

Clinicians should carefully evaluate risks versus benefits in each resident and obtain informed consent. There is some evidence from placebo-controlled trials of an increased mortality rate among subjects receiving atypical antipsychotics versus placebos (1.5-1.7 fold increase in mortality rate; Schneider et al., 2005; U.S. Food and Drug Administration, 2005). There is also evidence of an increased risk of cerebrovascular events. Possible side effects also include extrapyramidal symptoms, gait disturbance, sedation, widening of the QTc interval, anticholinergic effects (including delirium), and metabolic disturbances such as an increased risk of developing diabetes.

In view of the above warnings many experts in the field believe that the use of antipsychotics in individuals with dementia should be reserved for residents with severe agitation or psychosis, where severity is evaluated on the basis of the degree of danger, suffering or excess disability (Weintraub & Katz, 2005). Clinicians should aim for the lowest possible effective dosage.

**Recommendation: Behavioural Symptoms:
Pharmacological Interventions**

Appropriate first line pharmacological treatment of residents with severe behavioural symptoms without psychotic features can include: a) atypical antipsychotics; b) antidepressants such as trazodone or selective serotonin reuptake inhibitors (e.g., citalopram or sertraline). Antipsychotics [B]; Antidepressants [C]

There is limited evidence for the effectiveness of antidepressants in the treatment of behavioural symptoms. In one placebo-controlled randomized controlled trial (RCT) citalopram was significantly superior to placebo and appeared to outperform perphenazine (Pollock et al., 2002).^{1b} However, a recent review of placebo controlled studies noted that 4 other trials of serotonergic antidepressants reported negative results (Sink et al., 2005).^{1b} A study comparing trazodone to haloperidol reported equal improvement in agitation (Sultzer et al., 1997).^{1b}

**Recommendation: Behavioural Symptoms:
Pharmacological Interventions**

Pharmacological treatment of residents with severe behavioural symptoms can also include: a) anticonvulsants such as carbamazepine; b) short or intermediate acting benzodiazepines. Carbamazepine [B]; Benzodiazepines [C]

There is some evidence from a placebo-controlled RCT that carbamazepine improves agitation (Tariot et al., 1998)^{1b} although Olin and colleagues (2001) found limited benefit in their study. Potential adverse effects of carbamazepine include hepatic toxicity and blood dyscrasias. Placebo-controlled RCTs of divalproex sodium found no benefit (Porsteinsson et al., 2001; Tariot et al., 2005).^{1b}

Pharmacoepidemiological studies suggest that benzodiazepines are frequently used in LTC homes in many countries for anxiety, insomnia and behavioural symptoms (Conn et al., 1999). As there is limited evidence for the efficacy of benzodiazepines for agitation in this population, they should not be used as first line agents. In most cases, their use should be limited to brief periods (e.g., 2-3 weeks). It may be appropriate to use shorter acting benzodiazepines on an as needed (p.r.n.) basis. Two

RCTs suggested that benzodiazepines were as effective as low dose haloperidol (Christensen & Benfield, 1998; Coccaro et al., 1990). Benzodiazepines can occasionally cause paradoxical disinhibition. They may cause excessive sedation, gait disturbance, falls and worsen cognition. Use of long-acting benzodiazepines (e.g., diazepam) should be avoided in this population.

Combination pharmacological therapy for residents with severe behavioural symptoms may be necessary if monotherapy of sufficient dose and duration is unsuccessful.

In emergency situations when the resident or others are in danger of physical harm pharmacological options include: haloperidol IM, loxapine IM or olanzapine IM. Oral rapidly dissolving tablets (e.g., olanzapine [Zyprexa Zydis] or risperidone [Risperidal M-tab]) may also be useful when the resident is somewhat cooperative. Benzodiazepines (e.g., lorazepam) may also be useful. Meehan and colleagues (2002)^{1b} found that IM olanzapine and IM lorazepam were effective in treating agitation associated with dementia (after 2 hours). After 24 hours, subjects receiving olanzapine maintained superiority over placebo, whereas those who received lorazepam did not.

Note: It is rarely necessary to use IM medications in LTC homes. If necessary, it is important to use much lower dosages in the elderly (e.g., dosages of haloperidol should start at 0.5 – 1.0 mg. IM). The risk of extrapyramidal side effects (e.g., acute dystonia) is greater with conventional antipsychotics (e.g., haloperidol).

**Recommendation: Behavioural Symptoms:
Pharmacological Interventions**

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]

There is very limited evidence, primarily case reports, in support of pharmacological treatment for inappropriate sexual behaviour, (Cooper 1987; Levitsky & Owens, 1999).^{1v} Hormone therapies are generally used with men in severe situations when other interventions have failed. Common side effects include weight gain, breast pain, depression and oedema. There may be an increased risk of thromboembolism. Black and colleagues (2005) recently carried out a review of these behaviours and available treatments.

**Recommendation: Behavioural Symptoms:
Pharmacological Interventions**

Appropriate pharmacological treatment of behavioural symptoms associated with frontotemporal dementia can include trazodone or selective serotonin reuptake inhibitors. [B]

This recommendation is primarily based on two small RCTs (Lebert et al., 2004; Moretti et al., 2003).^{1b} Lebert and colleagues (2004) compared trazodone to placebo and reported some benefits particularly with irritability, agitation, depressive symptoms and eating disorders. Moretti and colleagues (2003) reported some behavioural benefits with paroxetine in a 14-month randomized, controlled open label study.

**Recommendation: Behavioural Symptoms:
Pharmacological Interventions**

Appropriate pharmacological treatment of residents with behavioural symptoms or psychosis associated with Parkinson's disease or dementia with Lewy bodies includes: a) cholinesterase inhibitors; or as a last resort b) an atypical antipsychotic with less risk of exacerbating extrapyramidal symptoms, (e.g., quetiapine). Cholinesterase inhibitors [B]; Quetiapine [C]

One placebo-controlled RCT of rivastigmine (a cholinesterase inhibitor) in Dementia with Lewy Bodies (DLB) found benefits in behavioural symptoms including hallucinations (McKeith et al., 2000).^{1b} *Antipsychotics should generally be avoided in residents with DLB as they may develop severe adverse effects.* Evidence regarding the use of atypical antipsychotics in DLB is limited to case series. If an antipsychotic is absolutely necessary in residents with Parkinson's disease, quetiapine may be less likely than other atypicals

to exacerbate the motor symptoms (Friedman & Factor, 2000). If there is no response to a cholinesterase inhibitor or quetiapine, there is some evidence to support the use of clozapine for psychosis associated with Parkinson's disease, with appropriate monitoring for agranulocytosis (Morgante et al., 2004).

Note: There is evidence that cholinesterase inhibitors (e.g., donepezil, galantamine and rivastigmine) and memantine may delay the emergence of behavioural symptoms in Alzheimer's Disease and other dementias. A recent meta-analysis of cholinesterase inhibitors in older adults with Alzheimer's disease suggested small but statistically significant improvement in studies using the *NPI (Neuropsychiatric Inventory)* as an outcome measure and a trend towards benefit in studies using the *ADAS-noncog* (Trinh et al., 2003).^{1a}

There is urgent need for more studies of residents with behavioural symptoms. We need to establish better predictors of response to particular groups of medication. Large scale trials comparing the effectiveness of these medications would also be invaluable.

**Recommendation: Behavioural Symptoms:
Pharmacological Interventions**

Pharmacological treatments for behavioural symptoms or psychosis associated with dementia should be evaluated for tapering or discontinuation on a regular basis (e.g., every 3-6 months). Ongoing monitoring for adverse effects should be under taken. [A]

The AGS/AAGP (2003) consensus statement supports the above recommendation with a review being carried out at least every 6 months. At least 3 RCTs have demonstrated that it is possible to successfully withdraw antipsychotic medication in the majority of residents following a period of stability (Ballard et al. 2004; Cohen-Mansfield et al. 1999; van Reekum et al. 2002).^{1b}

Part 6: Organizational and System Issues

6.1 Introduction

The recommendations in this section relate to a) organizational issues and b) system issues. Organizational issues focus on internal policy and procedures, such as human resource practices, whereas system issues focus on community context and partnerships.

6.2 Organizational Issues: Discussion and Recommendations

Recommendation: Organizational Issues

LTC homes should develop the physical and social environment as a therapeutic milieu through the intentional use of design principles. [D]

Given the importance of the physical and social environment in LTC homes for meeting the goals of care, it is recommended that the setting be developed as a therapeutic milieu through the intentional use of guidelines and principles for designing the physical environment and adjusting the social environment.

Factors in the social environment (e.g., philosophy of care, how care is provided, relational and social opportunities, activity, staff communication) and in the physical environment (e.g., space, noise, security features, layout, legibility) form the milieu. A therapeutic milieu can be designed to promote the mental health of all residents (e.g., decrease noise by eliminating overhead paging and call bells) or to address individual issues (e.g., peer support for a depressed resident, consideration of roommate compatibility) (Verma et al., 1998).

Many of the social characteristics of the milieu are mentioned in the preceding sections. *It is beyond the scope of these Guidelines to review the literature on designing the physical environment in detail. However the importance of this literature to the design of an effective therapeutic milieu is acknowledged.*

Important aspects of this literature address such issues as reducing agitation through management of unit size and design (Houde, 1996; Williams-Burgess et al., 1996) and control of environmental stressors (Kovach & Meyer, 1997). The Eden Model is a well-known example of a systemic approach to physical design that relies on the principles and values that should underlie resident care (www.edenalt.com). In a study that examined the impact of the Eden Model on quality of life and quality of work life in five LTC homes, the number of aggressive incidents by residents decreased by 60%, staff morale increased and staff injury and absenteeism decreased (Ransom, 2000).

The Alzheimer Society of Canada has developed guidelines for physical design that are applicable to LTC homes (www.alzheimer.ca). Supportive physical design provides safe shelter, accommodates individuality, enables physical function, and fosters social interaction and meaningful activities.

Similarly, the CCSMH developed a set of guidelines, titled *Supportive Physical Design Principles for Long-Term Care Settings*. The Guidelines address features of the milieu (physical and social environment) that support and enhance resident well being. Detailed recommendations can be found at <http://www.ccsmh.ca/en/designPrinciples.cfm>, and include the following:

- Maximize safety and security
- Maximize awareness and orientation
- Support functional abilities through application of principles of psychosocial rehabilitation
- Facilitate social contact and interaction
- Provide for privacy
- Provide opportunities for personal control
- Regulate the quantity and quality of stimulation
- Promote continuity of the self

Recommendation: Organizational Issues

LTC homes should have a written protocol in place related to staffing needs specific to the care of older residents with mood and/or behavioural symptoms. [C]

Staffing levels and mix related to case mix index often influence the ability to provide appropriate levels of care. While there is limited evidence regarding staff needs in LTC homes, judgement of appropriate staffing patterns in nursing is an important factor in the provision of safe and competent care. Staffing decisions must take into account resident acuity, complexity level, and the availability of expert resources.

The literature suggests that the ratio of registered nurses to residents, along with other defined factors such as experience of staff, significantly influences clinical outcomes in a positive way (Anderson et al., 2003). A study funded by the Centers for Medicare and Medicaid Services (2001) found that higher staffing levels for long-stay residents were related to fewer pressure ulcers, reduced skin trauma, and less weight loss. The researchers found that for every unit increase in staffing there was a positive improvement in resident outcomes. There was also a threshold for minimum staffing, which was 2.8 hours per resident per day (hprd) for nursing assistants/personal support workers, and 1.3 hprd for all licensed staff. Schnelle (2004) confirmed this threshold. Nursing homes in the upper 10th percentile on staffing (>4.1 hprd) performed significantly better on 13 of 16

care processes (such as assisting with eating or toileting). In Canada, the Canadian Nursing Association has drafted a document, Health Human Resources Knowledge Series on evaluation of staff mix (http://www.cna-aicc.ca/CNA/documents/pdf/publications/Final_Staf_Mix_Literature_Review_e.pdf).

Research is required to understand the specific staffing ratio and mix of staff required to care for older persons with mood and/or behavioural symptoms. More research is needed to define the roles of various types of practitioners (e.g., registered nurses, registered practical nurses, healthcare aides, personal support workers) in the care of residents with mood and behavioural symptoms.

Recommendation: Organizational Issues

LTC homes should have an education and training program for staff related to the needs of residents with depression and/or behavioural concerns. Ideally dedicated internal staff would be available to provide leadership in this area, including the development and delivery of best practices. [C]

Poor education and training can compromise resident care and safety (Anderson et al., 2005). Care providers require education and training in the detection and management of depressive and behavioural symptoms (Boustani et al., 2005).¹¹¹ Expert opinion suggests that education is necessary, but is often not sufficient to improve practice. Supporting care providers to make the transition from 'knowing' to 'doing' is complex. There is no single process of knowledge utilization (KU) that describes how all staff use knowledge in different practice settings.

Anderson and colleagues (2005) found that effective nursing home care involves sufficient cognitive diversity among care providers, that is, the system has a variety of people in diverse roles who make new information available. Several strategies supporting the education and training needs of care providers caring for clients with depression and/or behavioural concerns have been found effective. One is to create an internal clinical resource team, which includes reallocating internal resources, and another is to hire an advanced practice nurse or nurse practitioner for the facility (Kane et al., 2002; Ryden et al., 2000). These two strategies aim to: provide support to front line care providers who are providing services and support to older persons; engage in identifying and facilitating the delivery of learning and development of strategies in the facility aligned with best practice and the realities of the LTC facility; assist in identifying improvements in policy and practice related to identified issues in the LTC home; be an internal resource that works with and connects effectively in collaborative relationships with external resources; and reports directly to senior administration.

Residents with Advanced Practice Nurses (APN) as part of their care have been shown to experience significantly greater improvement or fewer declines in incontinence, pressure ulcers and aggressive behaviour (Ryden et al., 2000). As well, significantly less deterioration in affect was noted. Residents in nursing homes affiliated with APNs had family members that expressed greater satisfaction with the medical care their relatives received (Kane et al., 2002).

An Ontario program called PIECES is an example of an internal resource within a nursing home, which improves the behavioural care of residents (<http://www.piecescanada.com/pc-on.html>). It is a comprehensive provincial training strategy to enhance the ability of health professionals to meet the care requirements of individuals with complex physical and cognitive/mental health needs and with associated behavioural issues. PIECES provides a framework for understanding and systematically assessing the meaning behind the observed behaviour. Other Canadian educational resources include the book *Practical Psychiatry in the Long Term Care Facility: a Handbook for Staff* (Conn et al., 2001) and a CCSMH educational inventory "Educational Materials for Front Line Workers" (www.ccsmh.ca).

An additional strategy to improve training and education of staff is to collaborate with academic programs (including academic appointments for facility staff as appropriate) as a means of promoting knowledge transfer and translation. Further, administrators, directors of care, and charge nurses within LTC homes are required to provide leadership to enhance residents' care and to support the utilization of new evidence into practice (Anderson et al., 2005). Very little is known about how to improve the management and supervision of nursing home care, and thus further research is required.

There is no single process of KU that describes how all care providers use knowledge in different practice settings. It would be premature to apply the findings of KU studies conducted in acute care settings with professional health care practitioners to LTC homes and with unregulated care providers such as personal support workers. Therefore, more specific KU research is required in LTC homes.

Recommendation: Organizational Issues

LTC homes should have a written protocol in place related to the administration of medication by para-professional staff. [D]

Practices vary across the country in regards to the administration of medications within LTC homes by nonregulated and regulated nursing staff. However, we believe that LTC homes should have a written protocol to guide practice on

this issue. Administration of medications must be consistent with professional practice legislation, health care legislation, and educational standards. As a component of this protocol, it should be specified that any staff member administering medications must monitor and document the resident's response to drug therapy. Continuing education for staff related to the administration and monitoring of drug therapy specific to the needs of older residents is essential.

Recommendation: Organizational Issues

LTC homes should have a written policy in place regarding the use of restraints. [D]

The issue of restraints is important to this discussion of the assessment and management of behavioural symptoms in LTC homes, since it needs to be emphasized that restraint is not a therapeutic response to behavioural symptoms. Rather, the use of physical restraints should be understood as a short-term intervention implemented only under very restricted circumstances.

The reader is referred to the companion *National Guideline for Seniors' Mental Health: The Assessment and Treatment of Delirium (CCSMH 2006)* for a detailed discussion on restraints, including specific recommendations.

6.3 Systems Issues: Discussion and Recommendations

Recommendation: System Issues

LTC homes should obtain mental health services from local practitioners or multidisciplinary teams, with interest and expertise in geriatric mental health issues. [D]

We support expert opinion and previous guidelines that have contended that LTC homes need access to mental health experts. In some regions, psychogeriatric outreach teams may be available to provide assessment, treatment and staff education. Another option is to contract with individual practitioners. Regional acute care specialized inpatient services should be available for residents whose behaviours cannot be managed by the LTC facility. Some LTC homes may have special units where enhanced care can be provided.

Unfortunately many regions across the country have very limited access to such services. New technologies may allow for the provision of consultation through interactive video-conferencing (telehealth). In a few rural regions in Canada, consultation via telehealth is being used to complement local geriatric mental health services.

Recommendation: System Issues

Administrators and managers within LTC homes should be prepared to advocate with local, provincial, and national policy makers and funding agencies to promote the health and well being of older residents. [D]

In order to advocate on behalf of their residents, administrators and managers within the facility are responsible for being aware of current epidemiological trends and related health care needs of an aging population, with specific attention to the incidence of depression and behavioural symptoms in LTC residents. Canadian health documents, for example, *Building on Values: The Future of Health Care in Canada Report* (Commission on the Future of Health Care in Canada, 2002)^{iv}, the *First Ministers' Accord* (Canadian Intergovernmental Conference Secretariat, 2003)^{iv}, and the *Academy of Canadian Executive Nurses' Leadership Paper* (Ferguson-Paré et al., 2002)^{iv} have identified that increased attention to leadership and human resource development in health care is needed now.

Professional staff in LTC settings can become better leaders with appropriate preparation and educational support; and attention to the quality of their work life (McGilton et al., 2004).^{iv}

Recommendation: System Issues

LTC homes should have a process in place that ensures adherence to the ethical and legislative rights of the older resident. [D]

The interdisciplinary team should encourage and facilitate elderly people to understand who is their Substitute Decision Maker (SDM) in the hierarchy of SDMs while still mentally capable. The SDM is enacted when a person is deemed mentally incapable. At this point the SDM hierarchy is consulted to see who has the authority to make decisions on behalf of the patient, unless a Power of Attorney (POA) has already been appointed. When discussing issues of decision making with patient and clients, help them to understand who would be consulted to make decisions if they were no longer able to decide on their own, according to the SDM hierarchy. If they want to appoint someone who is not their first SDM according to the hierarchy to make their health decisions, then a formal POA should be appointed. For example, in Ontario the current hierarchy of SDMs is as follows:

- Guardian of the person
- Attorney in a Power of Attorney for Personal Care
- Representative as appointed by the Consent and Capacity Board

- Spouse or Partner
- Custodial Parent or child
- Parent with right of access
- Brother or Sister
- Any other relative
- Public Guardian and Trustee

If a patient has a spouse but would like their child to act as the decision maker, in this case a POA should be created. This is also the case if there are multiple children or siblings who would be eligible to act as an SDM but the patient would like to specify a particular child or sibling to make decisions on their behalf.

Ethical dilemmas emerge from a variety of issues within LTC settings and they need to be debated and resolved frequently. It is important for practitioners to know and understand their provincial law, as it is provincial law that helps to protect, promote and support seniors' rights. Additionally, the United Nations Declaration of the Rights of Older Persons (<http://www.un.org/esa/socdev/iyop/iyop-pop.htm>) provides a framework for LTC homes to assess their progress in protecting and promoting the rights of older adults. It is most important, however, for practitioners to know and understand the law in the province where they practice, as it is provincial law that helps to protect, promote and support seniors' rights.

Recommendation: System Issues
<p>LTC homes should ensure adequate planning, allocation of required resources and organizational and administrative support for the implementation of best practice guidelines. [D]</p> <hr style="width: 50%; margin-left: 0;"/> <p>LTC homes should monitor and evaluate the implementation of best practice recommendations. [D]</p>

Best practice guidelines can be successfully implemented only with adequate planning, the allocation of required resources, and organizational and administrative support. Organizations' implementation plans should include:

- Assessment of organizational readiness and barriers to education;
- Involvement of all members who will support the process;
- Dedication of a qualified individual to provide leadership for the education and implementation process;
- Ongoing opportunities for discussion and education to reinforce rationale for best practice; and
- Opportunities for reflection on individual and organizational experience in implementing the guidelines.

Organizations implementing recommendations for best practice are advised to consider the means by which the implementation and its impact will be monitored and evaluated. Considerations would include:

- Having dedicated staff provide clinical expertise and leadership with good interpersonal skills, facilitation and project management skills;
- Establishing a steering committee of key stakeholders committed to leading the initiative with an established work plan for tracking activities, responsibilities and timelines;
- Providing educational sessions and ongoing support for implementation; and
- Organizational/administrative support to facilitate the implementation and evaluation.

Part 7: Final Thoughts and Future Directions

Caring for residents in LTC homes with mental health problems is often challenging. Concern about the quality of care around the globe led to the recent formation of an International Psychogeriatric Association (IPA) Task Force on Mental Health Services in Residential Care Homes (<http://www.ipa-online.org>). Early discussions suggest that similar issues are relevant in almost all countries. These issues include inadequate staffing levels, lack of staff training regarding mental health issues, aging and poorly designed LTC homes, failure to identify and assess residents in a timely fashion, inappropriate use of psychotropic medications, limited availability of mental health consultants, etc.

Although we share these issues in Canada, there are model LTC homes which offer excellent care and in some regions first rate mental health services. Different models of service are applied but there is some evidence that liaison-style services (e.g., multidisciplinary and including education) may be more effective than the traditional medical consultation model (Draper, 2000). There have been a number of innovative educational programs

including the PIECES Program (<http://www.piecescanada.com/pc-on.html>) and the funding of Psychogeriatric Resource Consultants in Ontario.

We hope that these Guidelines will prove to be useful to frontline staff, consultants, administrators, accreditation bodies and others in the service of the residents we care for, as well as for their families. We realize that it may be difficult to implement all of the recommendations given the challenges described in this guideline document, but we hope that each facility will strive to adopt as many as possible.

We view this as a dynamic document and plan to periodically update the recommendations as new developments occur. Updates will be posted on the CCSMH website (www.ccsmh.ca). We need your feedback regarding how to improve the document so please fill out the feedback survey on the CCSMH website or contact us directly. We are also planning a national survey of LTC homes to obtain feedback on the implementation of the Guidelines.

References

- AGREE Collaboration (2001). Appraisal of guidelines for research and valuation [AGREE] instrument. Available: <http://www.agreecollaboration.org>.
- Alexopoulos GS, Abrams RC, Young RC, Shamoian CA. Use of the Cornell scale in nondemented patients. *J Am Geriatr Soc* 1988;36(3):230-6.
- Alexopoulos, GS, Jeste DV, Chung H, Carpenter D, Ross R, & Docherty JP. The expert consensus guideline series: Treatment of dementia and its behavioural disturbances. *A Postgrad Med Special Report* 2005.
- Alexopoulos GS, Katz IR, Reynolds CF, Carpenter D, Docherty JP. The expert consensus guideline series: Pharmacotherapy of depressive disorders in older patients. *A Postgrad Med Special Report*. New York: McGraw-Hill; 2001.
- Alexopoulos GS, Meyers BS, Young RC, Kalayam B, Kakuma T, Gabrielle M, et al. Executive dysfunction and long term outcomes of geriatric depression. *Arch Gen Psychiatry* 2000; 57:285-90.
- Alexopoulos GS, Raue P, Areean P. Problem-solving therapy versus supportive therapy in geriatric major depression with executive dysfunction. *Am J Geriatr Psychiatry* 2003;11:46-52.
- American Association of Retired Persons (AARP). Issue Paper: better mental health care for all generations. Washington (DC): American Association of Retired Persons; 1994.
- American Geriatrics Society (AGS). The management of pain in older persons. *JAGS* 2002;50(6S):S205-24.
- American Geriatrics Society, American Association for Geriatric Psychiatry (AGS/AAGP). Consensus statement on improving the quality of mental health care in U.S. nursing homes: management of depression and behavioural symptoms associated with dementia. *J Am Geriatr Soc* 2003;51(9):1287-98.
- American Medical Directors Association (AMDA). Depression: clinical practice guidelines. Columbia (MD): AMDA; 2003. Available: www.amda.ca.
- American Medical Directors Association (AMDA). Chronic pain management in the long term care setting. Columbia (MD): American Medical Directors Association; 1999.
- American Psychiatric Association (APA). Diagnostic and statistical manual of mental disorders. 4th ed. Text Revision Washington (D.C.): American Psychiatric Association; 2000a.
- American Psychiatric Association (APA). Practice guideline for the treatment of patients with major depression. American Psychiatric Association; 2000b. Available: www.psych.org/clin.res/Depression2ebook.cmf.
- American Psychological Association (APA). Guidelines for psychological practice with older adults. *American Psychologist* 2004;59:236-260. Available: <http://www.apa.org/practice/adult.pdf>.
- American Society of Consultant Pharmacists (ASCP). Guidelines for use of psychotherapeutic medications in older adults. American Society of Consultant Pharmacists 1995. Available: <http://www.ascp.com/public/pr/guidelines/psychmed.shtml>
- Ames D. Depression among elderly residents of local authority residential homes. Its nature and the efficacy of intervention. *Br J Psychiatry* 1990;156:667-75.
- Ancoli-Israel S, Gehrman P, Martin JL, Shochat T, Marler M, Corey-Bloom J, Levi L. Increased light exposure consolidates sleep and strengthens circadian rhythms in severe Alzheimer's disease patients. *Behav Sleep Med* 2003;1(1):22-36.
- Anderson RA, Bailey DE, Corazzini K, Piven ML. The power of relationship for high-quality long term care. *J Nurs Care Qual* 2005;20(2):103-6.
- Anderson RA, Issel LM, McDaniel RR Jr. Nursing homes as complex adaptive systems: relationship between management practice and resident outcomes. *Nurs Res* 2003;52(1):12-21.
- Anderson MA, Wendler MC, Congdon JC. Entering the world of dementia: CNA interventions for nursing home residents. *J Gerontol Nurs* 1998;24(11):31-7.
- Aronstein Z, Olsen R, Schulman E. The nursing assistants use of recreational interventions for behavioral management of residents with Alzheimer's disease. *Am J Alzheimers Dis Other Demen* 1996;11:26-31.
- Avorn J, Gurwitz JH. Drug use in the nursing home. *Ann Intern Med* 1995;123(3):195-204.
- Babins LH, Dillon JP, Merovitz S. The effects of validation therapy on disoriented elderly. *Act Adapt Aging* 1998;12:73-86.
- Baillon S, Van Diepen E, Prettyman R, Redman J. A comparison of the effects of snoezelen and reminiscence therapy on the agitated behaviour of patients with dementia. *Int J Geriatr Psychiatry* 2004;19:1047-52.
- Bains J, Birks JS, Denning TR. The efficacy of antidepressants in the treatment of depression in dementia. *Cochrane Database Syst Rev* 2002; (4):CD003944.
- Baldwin R, Wild R. Management of depression in later life. *Adv Psychiatr Treat* 2004;10:131-9.

- Ballard CG, O'Brien JT, Reichelt K, Perry EK. Aromatherapy as a safe and effective treatment for the management of agitation in severe dementia: the results of a double-blind, placebo-controlled trial with Melissa. *J Clin Psychiatry* 2002;63:553-8.
- Ballard CG, Thomas A, Fossey J, Lee L, Jacoby R, Lana MM et al. A 3-month, randomized, placebo-controlled, neuroleptic discontinuation study in 100 people with dementia: the neuropsychiatric inventory median cutoff is a predictor of clinical outcome. *J Clin Psychiatry* 2004;65(1):114-9.
- Ballard C, Waite J. The effectiveness of atypical antipsychotics for the treatment of aggression and psychosis in Alzheimer's disease. *Cochrane Database Syst Rev.* 2006 Jan 25;(1):CD003476.
- Beck CK, Heacock P, Mercer SO, Walls RC, Rapp CG, Vogelpohl TS. Improving dressing behaviour in cognitively impaired nursing home residents. *Nurs Res* 1997;46(3):126-32.
- Beck CK, Modlin T, Heithoff K, Shue V. Exercise as an intervention for behavior problems. *Geriatr Nurs* 1992;13:273-5.
- Beck CK, Vogelpohl TS, Rasin JH, Uriri JT, O'Sullivan P, Walls R, et al. Effects of behavioural interventions on disruptive behavior and affect in demented nursing home residents. *Nurs Res* 2002;51:219-28.
- Beers, MH, Ouslander JG, Rollinger I, Reuben DB, Brooks J, Beck JC. Explicit criteria for determining inappropriate medication use in nursing home residents. *Arch Intern Med* 1991;151:1825-32.
- Black B, Muralee S, Tampi R. Sexually inappropriate behaviors. *J Geriatr Psychiatry Neurol* 2005;18: 155-62.
- Bleathman C, Morton I. Validation therapy: a review of its contribution to dementia care. *Br J Nurs* 1996;14:866-8.
- Bohlmeijer E, Smit F, Cuijpers P. Effects of reminiscence and life-review on late-life depression: a meta-analysis. *Int J Geriatr Psychiatry* 2003;18:1088-94.
- Borson S, Fletcher PM. Mood Disorders. In: Reichman WE, Katz PR, editors. *Psychiatric Care in the Nursing Home*. New York: Oxford University Press; 1996. p.67-93.
- Bourgeois MS, Mason LA. Memory wallet intervention in an adult day-care setting. *Behav Intervent* 1996;11(1):3-18.
- Bourgeois S, Vézina J. L'extinction pour diminuer la fréquence des comportements agressifs d'une personne âgée souffrant de démence en milieu d'hébergement et de soins. *Revue Francophone de Clinique Comportementale et Cognitive* 1998;2:1-5.
- Boustani M, Zimmerman S, Williams CS, Gruber-Baldini AL, Watson L, Reed PS, et al. Characteristics associated with behavioural symptoms related to dementia in long term care residents. *Gerontologist* 2005;45:56-61.
- British Columbia Ministry of Health. *Guidelines for Best Practices in Elderly Mental Health Care in British Columbia*. Victoria (BC): British Columbia Ministry of Health; 2002.
- Brodaty H, Draper BM, Low LF. Behavioural and psychological symptoms of dementia: a 7-tiered model of service delivery. *Med J Aust* 2003a;178(5) 231-234.
- Brodaty H, Ames D, Snowdon J, Woodward M, Kirwan J, Clarnette R, et al. A randomized placebo-controlled trial of risperidone for the treatment of aggression, agitation, and psychosis of dementia. *J Clin Psychiatry* 2003b;64:134-43.
- Brooker D, Duce L. Wellbeing and activity in dementia: a comparison of group reminiscence therapy, structured goal-directed group activity and unstructured time. *Aging Ment Health* 2000;4:354-8.
- Brooker DJ, Snape M, Johnson E, Ward D, Payne M. Single case evaluation of the effects of aromatherapy and massage on disturbed behaviour in severe dementia. *Br J Clin Psychol* 1997;36:287-96.
- Brown MA. Agitation in dementia residents: the effects of caregivers' behaviors. [Unpublished master's thesis]. Toronto (ON): University of Toronto; 1995.
- Buettner LL, Fitzsimmons S. AD-venture program: therapeutic biking for the treatment of depression in long term care residents with dementia. *Am J Alzheimers Dis Other Demen* 2002;17:121-7.
- Burgener SC, Jirovec M, Murrel L, Barton D. Caregiver and environmental variables related to difficult behaviors in institutionalized, demented elderly persons. *J Gerontol* 1992;47(4):242-9.
- Burgio LD, Allen-Burge R, Roth DL, Bourgeois MS, Dijkstra K, Gerstle J, et al. Come talk with me: improving communication between nursing assistants and nursing home residents during care routines. *Gerontologist* 2001;41(4):449-60.
- Burgio LD, Fisher SE, Fairchild JK, Scilley K, Hardin JM. Quality of care in the nursing home: effects of staff assignment and work shift. *Gerontologist* 2004;44:368-77.
- Burgio L, Scilley K, Hardin JM, Hsu C, Yancey J. Environmental "white noise": an intervention for verbally agitated nursing home residents. *J Gerontol B Psychol Sci Soc Sci* 1996;51:364-73.
- Burrows AB, Salzman C, Satlin A, Noble K, Pollock BG, Gersh T. A randomized, placebo-controlled trial of paroxetine in nursing home residents with non-major depression. *Depress Anxiety*. 2002;15(3):102-10.

Byers JF. Holistic acute care units: partnerships to meet the needs of the chronically ill and their families. *AACN Clin Issues* 1997;8(2):271-9.

Camberg L, Woods P, Ooi WL, Hurley AC, Volicer L, Ashley J, et al. Evaluation of simulated presence: a personalized approach to enhance well-being in persons with Alzheimer's disease. *J Am Geriatr Soc* 1999;47:446-52.

Canadian Coalition for Seniors' Mental Health (CCSMH). *National Guidelines for Seniors' Mental Health: The Assessment of Suicide Risk & Prevention of Suicide*. Toronto (ON): CCSMH; 2006. Available: www.ccsmh.ca

Canadian Coalition for Seniors' Mental Health (CCSMH). *National Guidelines for Seniors' Mental Health: The Assessment and Treatment of Depression*. Toronto (ON): CCSMH; 2006. Available: www.ccsmh.ca

Canadian Coalition for Seniors' Mental Health (CCSMH). *National Guidelines for Seniors' Mental Health: The Assessment and Treatment of Delirium*. Toronto (ON): CCSMH; 2006. Available: www.ccsmh.ca

Canadian Intergovernmental Conference Secretariat (CICS). *First Ministers' Accord on sustaining and renewing health care for Canadians* [News Release]. Toronto (ON): CICS; 2003 Jan 23. Available: http://www.scics.gc.ca/cinfo03/850089004_e.html.

Canadian Psychiatric Association (CPA), Canadian Network for Mood and Anxiety Treatments (CANMAT). *Clinical guidelines for the treatment of depressive disorders*. *Can J Psychiatry* 2001;46(Suppl 1):1-91S.

Carpenter B, Ruckdeschel K, Ruckdeschel H, van Haitsma K. R-E-M psychotherapy: a manualized approach for long term care residents with depression and dementia. *Clin Gerontol* 2002;25:25-49.

Carson S, McDonagh MS, Peterson K. A systematic review of the efficacy and safety of atypical antipsychotics in patients with psychological and behavioral symptoms of dementia. *J Am Geriatr Soc*. 2006 Feb;54(2):354-61.

Centres for Medicare and Medicaid Services. *Appropriateness of minimum staffing ratios in nursing homes: Report to Congress, Phase 1 & 2*. Baltimore (MD): Author; 2001.

Chitsey AM, Haight BK, Faan, Jones MM. Snoezelen: a multi-sensory environmental intervention. *J Gerontol Nurs* 2002;28:41-9.

Christensen DB, Benfield WR. Alprazolam as an alternative to low-dose haloperidol in older, cognitively impaired nursing facility patients. *J Am Geriatr Soc* 1998;46(5):620-5.

Chung JCC, Lai CKY. Snoezelen for dementia. *Cochrane Database Syst Rev* 2002; (4):CD003152.

Churchill M, Safaoui J, McCabe BW, Baun MM. Using a therapy dog to alleviate the agitation and desocialization of people with Alzheimer's disease. *J Psychosoc Nurs Ment Health Serv* 1999;37:16-22.

Clark ME, Lipe AW, Bilbrey M. Use of music to decrease aggressive behaviors in people with dementia. *J Gerontol Nurs* 1998;24(7):10-7.

Coccaro EF, Kramer E, Zemishlany Z, Thorne A, Rice CM 3rd, Giordani B, et al. Pharmacologic treatment of noncognitive behavioral disturbances in elderly demented patients. *Am J Psychiatry* 1990;147(12):1640-5.

Cohen-Mansfield J. Nonpharmacological interventions for persons with dementia. *Alzheim Care Q* 2005;6(2):129-45.

Cohen-Mansfield J. Nonpharmacological interventions for Inappropriate behaviors in dementia: a review, summary and critique. *Am J Geriatr Psychiatry* 2001;9(4):361-80.

Cohen-Mansfield J, Billig N. Agitated behaviors in the elderly. A conceptual review. *J Am Geriatr Soc* 1986;34(10):711-21.

Cohen-Mansfield J, Lipson S, Werner P, Billig N, Taylor L, Woosley R. Withdrawal of haloperidol, thioridazine, and lorazepam in the nursing home: a controlled, double-blind study. *Arch Intern Med* 1999;159(15):1733-40.

Cohen-Mansfield J, Werner P. The effects of an enhanced environment on nursing home residents who pace. *Gerontologist* 1998;38(2):199-208.

Cohen-Mansfield J, Werner P. Management of verbally disruptive behaviors in nursing home residents. *J Gerontol A Biol Sci Med Sci* 1997;52:369-77.

Commission on the Future of Health Care in Canada. *Building on values: the future of health care in Canada*. Ottawa (Ontario); 2002. Available: http://www.hcsc.gc.ca/english/pdf/romanow/pdfs/HCC_Final_Report.pdf

Conn DK, Ferguson I, Mandelman K, Ward C. Psychotropic drug utilization in long term-care facilities for the elderly in Ontario, Canada. *Int Psychogeriatr* 1999;11(3):223-33.

Conn DK, Lee V, Steingart A, Silberfeld M. *Psychiatric Services: A survey of nursing homes and homes for the aged in Ontario*. *Can J Psychiatry* 1992;37:525-30.

Conn DK, Silver I. The psychiatrist's role in long term care: results of a Canadian Academy of Geriatric Psychiatry survey. *Can Nurs Home* 1998;9:22-4.

Conn DK, Herrmann N, Kaye A, Rewilak D, Schogt B, editors. *Practical psychiatry in the long term care facility: a handbook for staff*. Toronto (ON): Hogrefe and Huber; 2001.

- Cooper AJ. Medroxyprogesterone acetate (MPA) treatment of sexual acting out in men suffering from dementia. *J Clin Psychiatry* 1987;48(9):368-70.
- Cummings JL, Mega M, Gray K, Rosenberg-Thompson S, Carusi DA, Gornbein J. The Neuropsychiatric Inventory: comprehensive assessment of psychopathology in dementia. *Neurology* 1994;44(12):2308-14.
- Dalton JM. Development and testing of the theory of collaborative decision-making in nursing practice for triads. *J Adv Nurs* 2003;41(1):22-33.
- Dawson P, Wells DL, Kline K. Enhancing the abilities of persons with Alzheimer's and related dementias: a nursing perspective. New York: Springer Publishing Co; 1993.
- Dawson P, Wells DL, Reid D, Sidani S. An abilities assessment instrument for elderly persons with cognitive impairment: psychometric properties and clinical utility. *J Nurs Meas* 1998;6(1):35-54.
- Day K, Cameron D, Strump C. The therapeutic design of environments for people with dementia: a review of empirical research. *Gerontologist* 2000;40(4): 397-416
- De Deyn PP, Carrasco MM, Deberdt W, Jeandel C, Hay DP, Feldman PD et al. Olanzapine versus placebo in the treatment of psychosis with or without associated behavioral disturbances in patients with Alzheimer's disease. *Int J Geriatr Psychiatry*. 2004 Feb;19(2):115-26.
- De Deyn PP, Rabheru K, Rasmussen A, Bocksberger JP, Dautzenberg PL, Eriksson S, et al. A randomized trial of risperidone, placebo, and haloperidol for behavioral symptoms of dementia. *Neurology* 1999;53(5):946-55
- Devand DP, Brockington CD, Moody BJ. Behavioural syndromes in Alzheimer's disease. *Int Psychogeriatr* 1992;4:161-84.
- DeYoung S, Just G, Harrison R. Decreasing aggressive, agitated, or disruptive behavior: participation in a behavior management unit. *J Gerontol Nurs* 2002;28:22-31.
- Doody RS, Stevens JC, Beck C, Dubinsky RM, Kaye JA, Gwyther L, et al. Practice parameter: management of dementia (an evidence-based review). Report of the quality standards subcommittee of the American Academy of Neurology. *Neurology* 2001;56(9):1154-66.
- Drance E. Brief to the Senate Standing Committee on Social Affairs, Science and Technology. Vancouver, BC; June 2005: p. 2.
- Draper B. The effectiveness of old age psychiatry services. *Int J Geriatr Psychiatry* 2000;15(8):687-703.
- Espinoza RT. Electroconvulsive therapy in the long term care setting: an overview of controversies in practice. *J Am Med Dir Assoc* 2004;5(2 Suppl):S53-8.
- Ferguson-Paré M, Mitchell G, Perkin, K, Stevenson L. Academy of Canadian Executive Nurses' Leadership background paper on leadership. *CJNL* 2002;15(3):4-8.
- Finkel SI, Lyons JS, Anderson RL. A brief agitation rating scale (BARS) for nursing home elderly. *J Am Geriatr Soc* 1993; 41(1):50-2.
- Fitzsimmons S. Easy rider wheelchair biking: a nursing recreation therapy clinical trial for the treatment of depression. *J Gerontol Nurs* 2001;21:14-23.
- Flint AJ, Rifat SL. The treatment of psychotic depression in later life: a comparison of pharmacotherapy and ECT. *Int J Geriatr Psychiatry* 1998;13(1):23-8.
- Forbes D, Morgan DG, Bangma J, Pecock S, Pelletier N, Adamson J. Light therapy for managing sleep, behaviour, and mood disturbances in dementia. *Cochrane Databases Syst Rev* 2004; (2):CD003946.
- Frazier-Rios D, Zembrzuski C. Communication difficulties: assessment and interventions. In: Boltz M, editor. *Try this dementia series* 2004;1(7). Available from The Hartford Institute for Geriatr Nurs, Division of Nursing, New York University: www.hartfordign.org
- Friedman JH, Factor SA. Atypical antipsychotics in the treatment of drug-induced psychosis in Parkinson's disease. *Mov Disord* 2000;15(2):201-11.
- Futrell M, Melillo KD. Evidence-based protocol: Wandering. The University of Iowa Gerontological Nursing Interventions Research Centre: Research Dissemination Core; 2002. Available: http://www.guideline.gov/summary/summary.aspx?doc_id=3250&nbr=002476&string=002476
- Gerdner L. Evidence-based protocol: Individualized music. The University of Iowa Gerontological Nursing Interventions Research Centre: Research Dissemination Core; 2001. Available: http://www.guideline.gov/summary/summary.aspx?doc_id=3073&nbr=002299&string=002299
- Gerdner LA. The effects of individualized versus classical "relaxation" music on the frequency of agitation in elderly persons with Alzheimer's disease and related disorders. *Int Psychogeriatr* 2000;12:49-65.
- Gibson MC, Bol N. Behaviour Therapy for Long term care. *Can Nurs Home* 1996;7(11):16-20.
- Gibson MC, Bol N, Gray JA, Nielsen K, MacLean J. The art and science of a behavioural approach to care. *Perspectives* 1999;23(4):2-8.
- Goldwasser AN, Auerbach SM, Harkins SW. Cognitive, affective, and behavioural effects of reminiscence group therapy on demented elderly. *Int J Aging Hum Dev* 1987;25:209-22.

- Gormley N, Lyons D, Howard R. Behavioural management of aggression in dementia: a randomized controlled trial. *Age Aging* 2001;30:141-5.
- Government of Canada. Edited Hansard, Number 110. 38th Parliament, 1st Session. 2005, June 7th; Available: http://www.parl.gc.ca/38/1/parlbus/chambus/house/debates/110_2005-06-07/HAN110-E.htm
- Grade C, Redford B, Chrostowski J, Toussaint L, Blackwell B. Methylphenidate in early poststroke recovery: a doubleblind, placebo-controlled study. *Arch Phys Med Rehabil* 1998;79(9):1047-50.
- Haight BK, Michel Y, Hendrix S. Life review: preventing despair in newly relocated nursing home residents: short and long term effects. *Int J Aging Hum Dev* 1998;47:119-42.
- Hall GR, Buckwalter KC. Whole disease care planning: fitting the program to the client with Alzheimer's disease. *J Gerontol Nurs* 1991;17(3):38-41.
- Hall L, Hare J. Video Respite for cognitively impaired persons in nursing homes. *Am J Alzheimers Dis Other Demen* 1997;12:117-21.
- Health and Welfare Canada. Mental health for Canadians: Striking a balance. Ottawa: Health and Welfare Canada; 1988.
- Health Canada. Best practices: treatment and rehabilitation for seniors with substance use problems. Ottawa (ON): Minister of Health; 2002. Health Canada. Canada's Seniors. Ottawa (ON): Division of Health and Aging; 1999. Available: http://www.phac-aspc.gc.ca/seniors-aines/pubs/factoids/1999/pdf/entire_e.pdf
- Heard K, Watson TS. Reducing wandering by persons with dementia using differential reinforcement. *JABA* 1999;32:381-4.
- Hemels ME, Lanctot KL, Iskedjian M, Einarson TR. Clinical and economic factors in the treatment of behavioural and psychological symptoms of dementia. *Drugs Aging*. 2001;18(7):527-50.
- Hillman J, Skoloda TE, Angelini F, Stricker G. The moderating effect of aggressive problem behaviors in the generation of more positive attitudes toward nursing home residents. *Aging Ment Health* 2001;5(3):282-8.
- Hincliffe AC, Hyman IL, Blizard B, Livingston G. Behavioural complications of dementia-can they be treated? *Int J Geriatr Psychiatry* 1995;10:839-47.
- Hinrichsen GA. Interpersonal psychotherapy for late-life depression. In: M. Duffy M, editor. *Handbook of counseling and psychotherapy with older adults*. New York: Wiley; 1999. p.47-486
- Holmberg SK. Evaluation of a clinical intervention for wanderers on a Geriatr Nurs unit. *Arch Psychiatr Nurs* 1997;11(1):21-8.
- Holmes C, Hopkins V, Hensford C, MacLaughlin V, Wilkinson D, Rosenvinge H. Lavender oil as a treatment for agitated behaviour in severe dementia: a placebo controlled study. *Int J Geriatr Psychiatry* 2002;17:305-8.
- Houde D. Psychogeriatric services planning project. Greater Vancouver Regional District Vital Planning and Development, I - 73. Vancouver (BC); 1996.
- Hussian RA. Modifications of behaviours in dementia via stimulus manipulation. *Clin Gerontol* 1988;8:37-43.
- Hussian RA. A combination of operant and cognitive therapy with geriatric patients. *Int J Behav Geriatr* 1983;1:57-60.
- Hussian RA, Lawrence M. Social reinforcement and problem solving training in the treatment of depressed institutionalized elderly patients. *Cognit Ther Res* 1981;5:57-69.
- Hyer L, Carpenter B, Bishman D, Ho-Shyuan W. Depression in long term care. *Clin Psycho Sci Prac* 2005;12:280-99.
- Hyer L, Sohnle S, Mehan D, Regan A. Use of positive core memories in LTC: a review. *Clin Gerontol* 2002; 25:51-90.
- interRAI [homepage on the Internet]. 2006. Available from:www.interRAI.org
- Jones ED. Reminiscence therapy for older women with depression: effects of nursing intervention classification in assisted-living long term care. *J Gerontol Nurs* 2003;29:26-33.
- Kane RL, Flood S, Keckchafer G, Beshadsky B, Lum YS. Nursing home residents covered by Medicare risk contracts: early findings from the Evercare evaluation project. *J Am Geriatr Soc* 2002;50:719-27.
- Kasl-Godley J, Gatz M. Psychosocial interventions for individuals with dementia: an integration of theory, therapy, and a clinical understanding of dementia. *Clin Psychol Rev* 2000;6:755-82.
- Katz IR, Jeste DV, Mintzer JE, Clyde C, Napolitano J, Brecher M. Comparison of risperidone and placebo for psychosis and behavioral disturbances associated with dementia: a randomized, double-blind trial: Risperidone study group. *J Clin Psychiatry* 1999;60:107-15.
- Katz IR, Leshner E, Kleban M, Jethanandani V, Parmelee P. Clinical features of depression in the nursing home. *Int Psychogeriatr* 1989;1(1):5-15.
- Katz IR, Simpson GM, Curlik SM, Parmelee PA, Muhly C. Pharmacologic treatment of major depression for elderly patients in residential care settings. *J Clin Psychiatry* 1990;51:41-7; discussion 48.

- Kelley LS, Specht P, Maas ML, Titler MG. Family involvement in care for persons with dementia. Iowa City (IA): The University of Iowa Gerontological Nursing Intervention Research Centre, National Institute of Nursing Research; 1999. Available: <http://www.nursing.uiowa.edu/quirc>
- Kim EJ, Buschmann MT. The effect of expressive physical touch on patients with dementia. *Int J Nurs Stud* 1999;36:235-43.
- Koder DA, Brodaty H, Anstey KJ. Cognitive therapy for depression in the elderly. *Int J Geriatr Psychiatry* 1996;11:97-107.
- Koehler M, Rabinowitz T, Hirdes J, Stones M, Carpenter GI, Fries BE, et al. Measuring depression in nursing home residents with the MDS and GDS: an observational psychometric study. *BMC Geriatr* 2005;5(1):1.
- Koss E, Gilmore GC. Environmental interventions and functional ability of AD patients. In: Vellas B, Fitten LS, editors. *Research and practice in Alzheimer's disease*. New York (NY): Springer Publishing; 1998. p.185-192.
- Kovach CR, Meyer-Arnold EA. Preventing agitated behaviors during bath time. *Geriatr Nurs* 1997;18:112- 4.
- Kovach CR, Schlidt AM. The agitation-activity interface of people with dementia in long term care. *Am J Alzheimers Dis Other Demen* 2001;16(4):240-6.
- Kovach CR, Taneli Y, Dohearty P, Schlidt AM, Cashier S, Silva-Smith AL. Effect of the BACE intervention on agitation of people with dementia. *Gerontologist* 2004;44(6):797- 806.
- Kovach CR, Wells T. Pacing of activity as a predictor of agitation for persons with dementia in acute care. *J Gerontol Nurs* 2002;28(1):28-35.
- Landreville P, Bordes M, Dicaire L, Verreault R. Behavioral approaches for reducing agitation in residents of long term care facilities: critical review and suggestions for future research. *Int Psychogeriatr* 1998;10:397-419.
- Lazowski DA, Ecclestone NA, Myers AM, Paterson DH, Tudor-Locke C, Fitzgerald C, et al. A randomized outcome evaluation of group exercise programs in long term care institutions. *J Gerontol Biol Med Sci* 1999;54A:M621-8.
- Lebert F, Stekke W, Hasenbroekx C, Pasquier F. Frontotemporal dementia: a randomised, controlled trial with trazodone. *Dement Geriatr Cogn Disord* 2004;17(4):355-9.
- LeClerc CM, Sidani S, Wells DL, MacDonald G, Rivera T, Saunders S. Clinical utility of the feeding abilities assessment. *Alzheim Care Q* 2004;5(2):134-43.
- Ledoux E, Bigaoutte M, Taillefer D. Preventing aggressive and disruptive behavior in residential care facilities. *ADQ* 2000;2(1):27-34.
- Lee PE, Gill SS, Freedman M, Bronskill SE, Hillmer MP, Rochon PA. Atypical antipsychotic drugs in the treatment of behavioural and psychological symptoms of dementia: systematic review. *BMJ* 2004;329(7457):75.
- Levitsky AM, Owens NJ. Pharmacologic treatment of hypersexuality and paraphilias in nursing home residents. Review. *J Am Geriatr Soc* 1999;47(2):231-4.
- Libin A, Cohen-Mansfield J. Therapeutic robot for nursing home residents with dementia: preliminary inquiry. *Am J Alzheimers Dis Other Demen* 2004;19:111-6.
- Lichtenberg PA. *Mental health practice in geriatric health care settings*. Binghamton (NY): Haworth Press; 1998.
- Lo T, Bhanji NH. Beyond sad mood: alternate presentations of major depression in late life. *Geriatrics Aging* 2005; 8(8):12-9.
- Lohr KN, Field MJ. A provisional instrument for assessing clinical practice guidelines. In: Field MJ, Lohr KN, editors. *Guidelines for clinical practice: from development to use*. Washington D.C.: National Academy Press; 1992.
- Lovell BB, Ancoli-Israel S, Gevirtz R. Effect of bright light treatment on agitated behavior in institutionalized elderly subjects. *Psychiatry Res* 1995;29:7-12.
- Lundervold DA, Lewin LM. *Behaviour analysis and therapy in nursing homes*. Springfield (IL): Charles C Thomas Publishers; 1992.
- MacCourt P. Brief to the Senate Standing Committee on Social Affairs, Science and Technology. Vancouver, BC; June 2005: p. 4.
- Magai C, Kennedy G, Cohen CI, Gomberg D. A controlled clinical trial of sertraline in the treatment of depression in nursing home patients with late-stage Alzheimer's disease. *Am J Geriatr Psychiatry* 2000;8(1):66-74.
- Matthews EA, Farrell GA, Blackmore AM. Effects of an environmental manipulation emphasizing client-centred care on agitation and sleep in dementia sufferers in a nursing home. *J Adv Nurs* 1996; 24(3):439-47.
- McCallion P, Toseland RW, Lacey D, Banks S. Educating nursing assistants to communicate more effectively with nursing home residents with dementia. *Gerontologist* 1999;39:546-58.
- McCurren C, Dowe D, Rattle D, Looney S. Depression among nursing home elders: testing an intervention strategy. *Appl Nurs Res* 1999;12(4):185-95.
- McCusker J, Cole M, Dendukuri N, Han L, Belzile E. The course of delirium in older medical inpatients: a prospective study. *J Gen Intern Med* 2003;18(9):696-704(9).

McGilton K. Relating well to persons with dementia: a variable influencing staffing and quality of care outcomes. *Alzheimer Care Q* 2004;5(1):71-80.

McGilton KS, Mowat J, Parnell L, Lever J, Perivolaris A. A model of care for excellence in dementia care. Submitted to *Alzheimer Care Q*; 2006.

McGilton K, McGillis Hall L, Pringle D, O'Brien-Pallas L, Krejck J. Identifying and testing factors that influence supervisor's abilities to develop supportive relationships with their staff. Ottawa (ON): Canadian Health Services Research Foundation; 2004. Available: http://www.chsrf.ca/final_research/ogc/pdf/mcgilton_final.pdf

McGonigal-Kenney ML, Schutte DL. Non-pharmacological management of agitated behaviours in persons with Alzheimer's disease and other chronic dementing conditions. Iowa City (IA): University of Iowa Gerontological

Nursing Interventions Research Center, Research Dissemination Core; 2004. Available: http://www.guideline.gov/summary/summary.aspx?doc_id=6221&nbr=003992&string=003992

McKeith I, Del Ser T, Spano P, Emre M, Wesnes K, Anand R, et al. Efficacy of rivastigmine in dementia with Lewy bodies: a randomised, double-blind, placebo-controlled international study. *Lancet* 2000;356:2031-6

Meehan KM, Wang H, David SR, Nisivoccia JR, Jones B, Beasley CM Jr et al. Comparison of rapidly acting intramuscular olanzapine, lorazepam, and placebo: a double-blind, randomized study in acutely agitated patients with dementia. *Neuropsychopharmacology* 2002;26(4):494-504.

Mickus M, Luz C, Hogan A. Rationing long term care: Michigan's home and community based waiver program. Informing the Debate: Health Policy Options for Michigan Policymakers. Lansing (MI): Michigan State University; 2002.

Molloy WD, Darzins P, Strang D. Capacity to decide. Troy (Canada): Newgrange Press; 1999.

Morgante L, Epifanio A, Spina E, Zappia M, Di Rosa AE, Marconi R et al. Quetiapine and clozapine in parkinsonian patients with dopaminergic psychosis. *Clin Neuropharmacol* 2004;27(4):153-6.

Moretti R, Torre P, Antonello RM, Cazzato G, Bava A. Frontotemporal dementia: paroxetine as a possible treatment of behavior symptoms. A randomized, controlled, open 14-month study. *Eur Neurol* 2003;49(1):13-9.

Morris JN, Hawes C, Murphy K, Nonemaker S. Long term care resident assessment instrument user's manual version 2.0. Baltimore (MD): Health Care Financing Administration; 1995.

Morriss RK, Rovner BW, Folstein MF, German PS. Delusions in newly admitted residents of nursing homes. *Am J Psychiatry* 1990;147(3):299-302.

National Advisory Committee on Health and Disability. Guidelines for the treatment and management of depression by primary healthcare professional. New Zealand: New Zealand Guidelines Group; 1996.

National Advisory Council on Aging. 1999 and beyond: challenges of an aging Canadian society. Ottawa (ON): National Advisory Council on Aging; 1999.

Neal M, Briggs M. Validation therapy for dementia. *Cochrane Database Syst Rev* 2003; (3):CD001394.

Niederehe G. Developing psychosocial interventions for depression in dementia: beginnings and future directions. *Clin Psychol Sci Pract* 2005;12:317-20.

Nyth AL, Gottfries CG, Lyby K, Smedegaard-Andersen L, Gylding-Sabroe J, Kristensen M, et al. A controlled multicenter clinical study of citalopram and placebo in elderly depressed patients with and without concomitant dementia. *Acta Psychiatr Scand* 1992;86(2):138-45.

Olin JT, Fox LS, Pawluczyk S, Taggart NA, Schneider LS. A pilot randomized trial of carbamazepine for behavioral symptoms in treatment-resistant outpatients with Alzheimer disease. *Am J Geriatr Psychiatry* 2001;9:400-5.

Oslin DW, Ten Have TR, Streim JE, Datto CJ, Weintraub D, DiFilippo S, et al. Probing the safety of medications in the frail elderly: evidence from a randomized clinical trial of sertraline and venlafaxine in depressed nursing home residents. *J Clin Psychiatry* 2003;64(8):875-82.

Opie J, Doyle C, O'Connor DW. Challenging behaviours in nursing home residents with dementia: a randomized controlled trial of multidisciplinary interventions. *Int J Geriatr Psychiatry* 2002;17:6-13.

Patterson CJ, Gauthier S, Bergman H, Cohen CA, Feightner JW, Feldman H, et al. The recognition, assessment and management of dementing disorders: conclusions from the Canadian Consensus Conference on Dementia. *CMAJ* 1999;160(12 Suppl):S1-15.

Pollock BG, Mulsant BH, Rosen J, Sweet RA, Mazumdar S, Bharucha A, et al. Comparison of citalopram, perphenazine, and placebo for the acute treatment of psychosis and behavioral disturbances in hospitalized, demented patients. *Am J Psychiatry* 2002;159(3):460-5.

Porsteinsson AP, Tariot PN, Erb R, Cox C, Smith E, Jakimovich L et al. Placebo-controlled study of divalproex sodium for agitation in dementia. *Am J Geriatr Psychiatry* 2001;9(1):58-66.

- Proctor R, Burns A, Powell HS, Tarrier N, Faragher B, Richardson G, et al. Behavioral management in nursing and residential homes: a randomized controlled trial. *Lancet* 1999;354:26-9.
- Qizilbash N, Schneider L, Chui H, Tariot P, Brodaty H, Kaye J, et al., editors. Evidence-based dementia: a practical guide to diagnosis and management. Oxford: Blackwell Science Ltd; 2002.
- Quinn JF. Therapeutic touch as energy exchange: testing the theory. *Adv Nurs Sci* 1984;6:42-9.
- Radloff LS. The CES-D scale: a self-report depression scale for research in the general population. *Appl Psychol Meas* 1977;1:385-401.
- Ransom S. Eden alternative: the Texas project. San Marcos (TX): Southwest Texas State University: College Health Professions; 2000. p. 1 - 102.
- Rapp CG, Iowa Veterans Affairs Nursing Research Consortium. Research-based protocol: acute confusion/delirium. Iowa City (IA): The University of Iowa Gerontological Nursing Interventions Research Center, Research Development and Dissemination Core; 1998.
- Registered Nurses Association of Ontario (RNAO). Caregiving strategies for older adults with delirium, dementia and depression. Toronto (ON): Registered Nurses Association of Ontario; 2004. Available: http://www.rnao.org/bestpractices/completed_guidelines/BPG_Guide_C4_caregiving_elders_ddd.asp
- Registered Nurses Association of Ontario (RNAO). Screening for delirium, dementia and depression in older adults. Toronto (ON): Registered Nurses Association of Ontario; 2003. Available: http://www.rnao.org/bestpractices/completed_guidelines/BPG_Guide_C3_ddd.asp
- Reisberg B, Borenstein J, Salob SP, Ferris SH, Franssen E, Georgotas A. Behavioral symptoms in Alzheimer's disease: phenomenology and treatment. *J Clin Psychiatry* 1987;48 (Suppl):9-15.
- Rewilak D. Behaviour management strategies: an update. In: Conn DK, Herrmann N, Kaye A, Rewilak D, Robinson A, Schogt B, editors (2nd ed). *Practical psychiatry in the long term care facility: a handbook for staff*. Toronto (ON): Hogrefe and Huber; 2001.
- Reynolds CE, Perel JM, Frank E, Cornes C, Miller MD, Houck PR, et al. Three-year outcomes of maintenance nortriptyline treatment in late-life depression: a study of two fixed plasma levels. *Am J Psychiatry* 1999;156:1177-81.
- Roberts S, Durnbaugh T. Enhancing nutrition and eating skills in long term care. *Alzheim Care Q* 2002;3(4):316-29.
- Rogers JC, Holm MB, Burgio LD, Granieri E, Hsu C, Hardin JM. Improving morning care routines of nursing home residents with dementia. *J Am Geriatr Soc* 1999;47(9):1049-56.
- Roose SP, Nelson JC, Salzman C, Hollander SB, Rodrigues H; Mirtazapine in the Nursing Home Study Group. Open-label study of mirtazapine orally disintegrating tablets in depressed patients in the nursing home. *Curr Med Res Opin*. 2003;19(8):737-46.
- Rosen J, Burgio L, Kollar M. The Pittsburg agitation scale: a userfriendly instrument for rating agitation in dementia patients. *Am J Geriatr Psychiatry* 1994;2:52-9.
- Rosen J, Rogers JC, Marin RS, Mulsant BH, Shahar A, Reynolds CR 3rd. Control-relevant intervention in the treatment of minor and major depression in a long term care facility. *Am J Geriatr Psychiatry* 1997;5:247-57.
- Roth M, Mountjoy CQ, Amrein R. Moclobemide in elderly patients with cognitive decline and depression: an international double-blind, placebo-controlled trial. *Br J Psychiatry* 1996;168(2):149-57.
- Rovner BW, German PS, Broadhead J, Morriss RK, Brant LJ, Blaustein J, et al. The prevalence and management of dementia and other psychiatric disorders in nursing homes. *Int Psychogeriatr* 1990;2(1):13-24.
- Ryden MB, Snyder M, Gross CR, Savik K, Pearson V, Krichbaum K, et al. Value added outcomes: the use of advanced practice nurses in long term care facilities. *Gerontologist* 2000; 40(6):654-62.
- Scanland SG, Emershaw EL. Reality orientation and validation therapy: dementia, depression, and functional status. *J Gerontol Nurs* 1993;19:7-11.
- Schindel Martin L. Developing a C.R.A.F.T. approach to resident bathing. *Can Nurs Home* 1998;9(2):4-8. As cited in: Thiru-Chelvam B. Bathing persons with dementia. Iowa City (IA): The University of Iowa Gerontological Nursing Interventions Research Center, Research Development and Dissemination Core; 2004.
- Schindler SD, Graf A, Fischer P, Tolk A, Kasper S. Paranoid delusions and hallucinations and bright light therapy in Alzheimer's disease. *Int J Geriatr Psychiatry* 2002;17:1071-2.
- Schneider NM, Camp CJ. Use of Montessori-based activities by visitors of nursing home residents with dementia. *Clin Gerontol* 2002;26(1/2):71-84.
- Schneider LS, Dagerman KS, Insel P. Risk of death with atypical antipsychotic drug treatment for dementia: meta-analysis of randomized placebo-controlled trials. *JAMA*. 2005;294 (15):1934-43.

Schnelle JF. Long term care workforce and quality. *Alzheim Care Q* 2004;5(1):1-2.

Scholey KA, Woods BT. A series of brief cognitive therapy interventions with people experiencing both dementia and depression: a description of techniques and common themes. *Clin Psychol Psychother* 2003;10:175-85.

Shekelle PG, Woolf SH, Eccles M, Grimshaw J. Clinical guidelines: developing guidelines. *BMJ* 1999;318:593-6.

Sink KM, Holden KF, Yaffe K. Pharmacological treatment of neuropsychiatric symptoms of dementia: a review of the evidence. *JAMA*. 2005, 293(5):596-608.

Slone DG, Gleason CE. Behavior management planning for problem behaviors in dementia: a practical model. *Prof Psychol Res Pr* 1999;30:27-36.

Sloane PD, Hoeffler B, Mitchell CM, McKenzie DA, Barrick AL, Rader J, et al. Effect of person-centered showering and the towel bath on bathing-associated aggression, agitation, and discomfort in nursing home residents with dementia: a randomized, controlled trial. *J Am Geriatr Soc* 2004;52(11):1795-1804.

Small JA, Gutman G, Makela S, Hillhouse B. Effectiveness of communication strategies used by caregivers of persons with Alzheimer's Disease during activities of daily living. *J Speech Lang Hear Res* 2003;46(2):353-67.

Snowdon J. Mental health in nursing homes: perspectives on the use of medication. *Drugs Aging* 993;3:122-30.

Snowden M, Sato K, Roy-Byrne P. Assessment and treatment of nursing home residents with depression and behavioral symptoms associated with dementia: a review of the literature. *J Am Geriatr Soc* 2003;51:1305-17.

Snyder M, Egan EC, Burns KR. Interventions for decreasing agitation behaviors in persons with dementia. *J Gerontol Nurs* 1995;21:34-40.

Snyder M, Olsen J. Music and hand massage interventions to produce relaxation and reduce aggressive behaviors in cognitively impaired elders: a pilot study. *Clin Gerontol* 1996;17:646-9.

Street JS, Clark WS, Gannon KS, Cummings JL, Bymaster FP, Tamura RN, et al. Olanzapine treatment of psychotic and behavioral symptoms in patients with Alzheimer disease in nursing care facilities: a double-blind, randomized, placebo-controlled trial. The HGEU Study Group. *Arch Gen Psychiatry* 2000;57(10):968-76.

Sultz DL, Gray KE, Gunay I, Berisford MA, Mahler ME. A double-blind comparison of trazodone and haloperidol for treatment of agitation in patients with dementia. *Am J Geriatr Psychiatry* 1997;5(1):60-9.

Tappen RM, Roach KE, Applegate EB, Stowell P. Effect of a combined walking and conversation intervention on functional mobility of nursing home residents with Alzheimer disease. *Alzheimer Dis Assoc Disord* 2000;14(4):196-201.

Tariot PN, Blazina L. The psychopathology of dementia. In: Morris JC, editor. *Handbook of dementing illnesses*. New York: Marcel Dekker; 1994. p. 461-75.

Tariot PN, Erb R, Podgorski CA, Cox C, Patel S, Jakimovich L, et al. Efficacy and tolerability of carbamazepine for agitation and aggression in dementia. *Am J Psychiatry* 1998;155:54-61.

Tariot PN, Raman R, Jakimovich L, Schneider L, Porsteinsson A, Thomas R, et al. Alzheimer's Disease Cooperative Study. Valproate Nursing Home Study Group. Divalproex sodium in nursing home residents with possible or probable Alzheimer Disease complicated by agitation: a randomized, controlled trial. *Am J Geriatr Psychiatry* 2005;13(11):942-9.

Teri L, Gibbons LE, McCurry SM, Logsdon RG, Buchner DM, Barlow WE, et al. Exercise plus behavior management in patients with Alzheimer's disease: a randomized controlled trial. *JAMA* 2003;290:2015-22.

Teri L, Logsdon RG, Peskind E, Raskind M, Weiner MF, Tractenberg RE, et al. Treatment of agitation in AD: a randomized, placebo-controlled clinical trial. *Neurology* 2000; 55:1271-8.

Teri L, McKenzie G, La Fazia D. Psychosocial treatment of depression in older adults with dementia. *Clin Psychol Sci Pract* 2005;12:303-16.

Teresi JA, Holmes D, Ory MG. The therapeutic design of environments for people with dementia: further reflections and recent findings for the National Institute on Aging Collaborative Studies of Dementia Special Care Units. *Gerontologist* 2000;40(4):417-21.

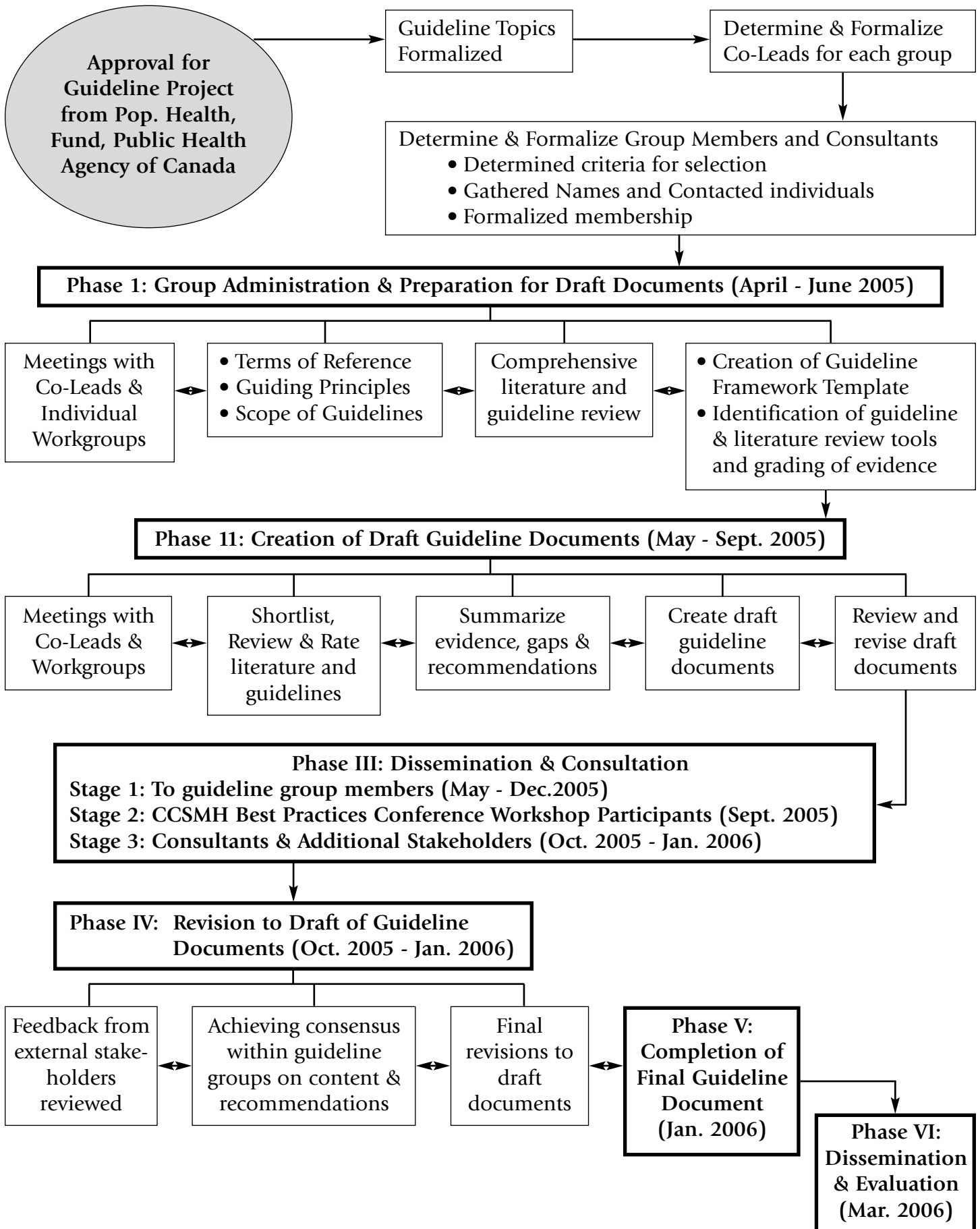
Tilly J, Reed P. Evidence on interventions to improve quality of care for residents with dementia in nursing and assisted living facilities. Chicago (IL): The Alzheimer's Association; 2004. Available: www.alz.org/health/care/dcpr/asp

Thiru-Chelvam B. Bathing persons with dementia. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core; 2004 Available: http://www.guideline.gov/summary/summary.aspx?doc_id=6220&nbr=003991&string=003991

Thompson LW, Coon DW, Gallagher-Thompson D, Sommer BR, Koin D. Comparison of desipramine and cognitive/behavioral therapy in the treatment of elderly outpatients with mild-to-moderate depression. *Am J Geriatr Psychiatry* 2001; 9:225-40.

- Toulotte C, Fabre C, Dangremont B, Lensele G, Thevenon A. Effects of physical training on the physical capacity of frail, demented patients with a history of falling: a randomised controlled trial. *Age Ageing* 2003;32(1):67-73.
- Trinh NH, Hoblyn J, Mohanty S, Yaffe K. Efficacy of cholinesterase inhibitors in the treatment of neuropsychiatric symptoms and functional impairment in Alzheimer disease: a meta-analysis. *JAMA* 2003;289(2):210-6.
- University of Iowa Gerontological Nursing Interventions Research Center. Wheelchair biking for the treatment of depression. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core; 2003.
- U. S. Food and Drug Administration. FDA public health advisory: deaths with antipsychotics in elderly patients with behavioral disturbances. April 2005. Available: <http://www.fda.gov/cder/drug/advisory/antipsychotics.htm>
- U.S. National Center for Health Statistics. The national nursing home survey: 1995. Advance data No. 289. Hyattsville (MD): U.S. National Center for Health Statistics; 1997.
- van Iersel MB, Zuidema SU, Koopmans RT, Verhey FR, Olde Rikkert MG. Antipsychotics for behavioural and psychological problems in elderly people with dementia: a systematic review of adverse events. *Drugs Aging*. 2005;22(10):845-58.Review.
- van Reekum R, Clarke D, Conn D, Herrmann N, Eryavec G, Cohen T et al. A randomized, placebo-controlled trial of the discontinuation of long term antipsychotics in dementia. *Int Psychogeriatr* 2002;14(2):197-210.
- Verma SD, Davidoff DA, Kambhampati KK. Management of the agitated elderly patient in the nursing home: the role of the atypical antipsychotics. *J Clin Psychiatry* 1998;59(Suppl 19):50-5.
- Vink AC, Birks JC, Bruinsma MS, Scholten RJS. Music therapy for people with dementia. *The Cochrane Database of Syst Rev* 2003; (4): CD003477.
- Wang J. The comparative effectiveness among institutionalized and non-institutionalized elderly people in Taiwan of reminiscence therapy as a psychological measure. *J Nurs Res* 2004; 12:237-44.
- Waters E. Let's not wait till it's broke: interventions to maintain and enhance mental health in late life. In: Gatz M, editor. *Emerging Issues in mental health and aging*. Washington: American Psychological Association; 1995
- Watson R. Feeding patients who are demented. *Nurs Stand* 1989;4(44):28-30.
- Weintraub D, Streim JE, Datto CJ, Katz IR, DiFilippo SD, Oslin DW. Effect of increasing the dose and duration of sertraline trial in the treatment of depressed nursing home residents. *J Geriatr Psychiatry Neurol* 2003;16(2):109-11.
- Weintraub D, Katz IR. Pharmacologic interventions for psychosis and agitation in neurodegenerative diseases: evidence about efficacy and safety. *Psychiatr Clin N Am* 2005;28:941-83.
- Wells DL, Dawson P. Description of retained abilities in older persons with dementia. *Res Nurs Health* 2000;23:158-66.
- Werner P, Cohen-Mansfield J, Fischer J, Segal G. Characterization of family generated videotapes for the management of verbally disruptive behaviors. *J Appl Gerontol* 2000;19:42-57.
- Williams-Burgess C, Ugarriza D, Gabbai M. Agitation in older persons with dementia: a research synthesis. *Online J Knowl Synth Nurs*. 1996;3:1-24.
- Woods DL, Dimond M. The effect of therapeutic touch on agitated behavior and cortisol in persons with Alzheimer's disease. *Biol Res Nurs* 2002;4:104-14.
- Woods B, Spector A, Jones C, Orrell M, Davies S. Reminiscence therapy for dementia. *Cochrane Database Syst Rev* 2005; (2): CD001120.
- Yesavage JA, Brink TL, Rose TL, Lum O, Huang V, Adey M, Leirer VO. Development and validation of a geriatric depression screening scale: a preliminary report. *J Psychiatr Res* 1982-83; 17(1):37-49.

Appendix A: Guideline Development Process



Appendix B. General Principles for Pharmacological Intervention

Avorn and Gurwitz (1995) outlined some basic questions that should be asked prior to the prescribing of any drug in LTC settings. These questions are listed in Table 1.

Table 1: Questions to be asked in evaluating any drug use in a nursing home
1. What is the target problem being treated? (Can we also identify the goal of therapy as well?)
2. Is the drug necessary?
3. Are nonpharmacologic therapies available?
4. Is this the lowest practical dose?
5. Could discontinuing therapy with a medicine help to reduce symptoms?
6. Does this drug have adverse effects that are more likely to occur in an older patient?
7. Is this the most cost-effective choice?
8. By what criteria, and at what time, will the effects of therapy be assessed?

Studies have shown that there has frequently been a failure to document reasons for prescribing medications in LTC settings. It is important to describe and document the target problem being treated, clearly identify treatment goals, to consider alternatives to medications, to review potential adverse effects, interactions, and most importantly, to determine by what criteria, and when, the effects of therapy will be reassessed. Beers and colleagues (1991) convened a panel of national experts in the United States in an attempt to reach a consensus on defining inappropriate medication use in the nursing home. Using these criteria, they reported that more than 40% of residents had at least one inappropriate prescription in a group of California nursing homes.

Most studies suggest that between 50% and 75% of nursing home residents have at least one prescription for a psychotropic medication. The patterns and rates of use of these medications vary widely from institution to institution and from country to country. Snowdon (1993) notes that factors which might explain these variations include differences in the prevalence and severity of disorders, levels of physical disability, prescribing habits of physicians, involvement by pharmacists, number of

untrained staff, size and design of institutions, funding and type of institutions, socio-economic background of the residents, and policies regarding admissions. Concerns about the use of psychotropic medications have included the lack of a documented diagnosis, physician characteristics (rather than those of patients) predicting drug dosage, mental health consultation being rarely available for LTC residents and the high risk of complications, such as falls, fractures and movement disorders. Particular concerns have been raised with regard to the possible overuse of antipsychotic (neuroleptic) drugs and benzodiazepines.

Before prescribing any psychotropic medication it is important to rule out any acute medical conditions (such as infections), and consider the differential diagnosis including medication treatment and management of coexisting chronic medical conditions that may be contributing to the changes in mood or behaviour. It is important to be aware of the altered pharmacokinetics and pharmacodynamics of medications in the older adult.

The American Society of Consultant Pharmacists (ASCP) has developed "Guidelines for the Use of Psychotherapeutic Medications in Older Adults" (1995). The eight guidelines are as follows:

1. Older adults should be screened for presence of affective, cognitive and other psychiatric disorders.
2. Older adults who exhibit symptoms of psychiatric disorders should be thoroughly assessed by a qualified health care professional.
3. Behavioural symptoms in older adults should be objectively and quantitatively monitored by caregivers or facility staff and documented on an ongoing basis. When possible, psychiatric symptoms should also be monitored in this fashion.
4. If the behaviours do not present an immediate serious threat to the patient or others, the initial approach to management of behavioural symptoms in older adults should focus on environmental modifications, behavioural interventions, psychotherapy or other nonpharmacologic interventions.
5. When medications are indicated, select an appropriate psychotherapeutic agent, considering effectiveness of the medication and risk of side effects.
6. Begin medication at the lowest appropriate dosage and increase the dose gradually.
7. Monitor the patient for therapeutic response from the medication and for adverse drug reactions.
8. The psychotherapeutic medication regimen should be routinely re-evaluated for the need for continued use of medication, dosage adjustments or a change in medication.

