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Guidelines

The Annual Health Review for Residents of Long-Term Care Facilities: A Suggested Template

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Background: The annual health examination is part of the legislated standard of care for long-term care facilities in Ontario. Although guidelines exist for the periodic health examination in the primary-care office setting, there is no consensus for the annual examination in long-term care.

Methods: As part of a longitudinal research component of the Care of the Elderly training program at the University of Ottawa, current literature was reviewed to identify current recommendations and/or guidelines for the long-term care population. Where evidence did not exist, opinion was sought from physicians with experience working with the elderly. The evidence was then synthesized into a template for the annual health review. The focus of the review is the identification of high-risk problems, chronic disease management, and health promotion.

Results: Review of the literature supported our notion that there exists very little evidence-based guidelines for this population. Recommendations available focussed on the identification of patient-specific problems, and problems common to the institutionalized elderly or elderly with chronic diseases. The suggested template was structured to incorporate geriatric problems relevant to the typical elderly long-term-care resident with an estimated life expectancy of 2 to 5 years.

Conclusions: The annual health review can be an invaluable tool when used to identify high-risk problems common to long-term-care residents. The suggested template assists the physician to identify patient-specific problems, high-risk problems, and can also be used as an effective communication tool to enhance communication between other health-care providers and family members.

Key words: Annual review, long-term care, institutionalized, elderly

INTRODUCTION

The annual health review and physical examination are part of the legislated standard of care for Long-Term Care (LTC) facilities in Ontario, but are relevant to all LTC residents in the Canadian setting. As the face of LTC is changing, so is the role of the attending physician. Residents are being admitted with an increased complexity of care and with an overall life expectancy of less than 3 to 5 years. It is estimated that prevalence of dementia is at least 50% in residents residing in long-term-care facilities. This number is expected to increase as the prevalence of dementia continues to rise.[1] In addition, >50% of nursing home residents will require assistance with four or more activities of daily living.[2] It is recognized that although annual examinations are an expected standard of care, there is no consensus on what the examination should include, nor on the purpose of the examination. The annual health examination is an invaluable tool for the purposes of identification of high-risk problems common to LTC residents, disease prevention and health promotion and for improving communication with other health-care providers and families.

A literature review was completed to identify and review current evidence-based guidelines regarding annual review/examination relevant to the elderly. Recommendations were reviewed from the Canadian Task Force on the Periodic Health Examination,[3] the United States Preventive Services Task Force[4] and the geriatric literature. In areas lacking an evidence-based consensus approach, expert opinion was sought from experienced LTC physicians, and consensus was reached by the authors. Although there are many evidence-based screening guidelines available for the general population, there is a paucity of specific screening guidelines for the elderly and particularly for those living in institutions.

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Recommendations that were available for this population focussed on the identification of patient-specific problems, problems common to the institutionalized elderly and the elderly with chronic diseases.[5] Problems addressed included chronic disease monitoring, identification and monitoring of progressive functional impairments, cognitive impairment, depression, behavioural changes, acute confusion/delirium, falls, incontinence, malnutrition, osteoporosis, and skin breakdown. In addition, important aspects included advance directives of care, communication of care needs, and development of a plan of care for the coming year.

The proposed annual health review template (see Appendix) was developed in Ottawa by a group of physicians with expertise in LTC and as part of an ongoing research project by Care of the Elderly Family Medicine Residents at the University of Ottawa, and the Sisters of Charity of Ottawa (SCO) Health Service. The guide targets the typical LTC resident who is over 80 with an estimated life expectancy of 2 to 5 years. The focus of the annual review is identification of geriatric issues and patient-specific problems, in contrast to primary prevention as is the case for healthy seniors living independently in the community. Many of the primary preventative recommendations were adapted to reflect the higher prevalence of illness and disease in LTC. The core goals of the annual review are to assist in the identification of high-risk problems, the management of chronic diseases, and the adjustment of management strategies to improve the quality of life within the nursing home environment.

It is to be noted that certain aspects of the physical examination have been left out, because their routine use for asymptomatic residents as part of a screening examination have not been shown to be clinically relevant for the LTC population (e.g. rectal, abdominal, pelvic exams, primitive reflexes). These exams, however, may be indicated by clinical symptomatology of individual residents. Cancer screening for the elderly may be indicated for those with life expectancy of >10 years.[6] Exceptions to consider include cervical cancer screening for women who have never had a PAP smear, and clinical breast examination to identify clinically significant breast cancer that will impact upon the resident's morbidity.

The authors recommend that this guide not replace clinical judgement when applying the template to individual patients. We have found the tool to be useful in the day to day management of residents in LTC. It has enhanced communication between other health-care providers such as consultants, allied health professionals, acute care facilities, and on-call physicians. The guide has also been found to be useful for the admission history and physical, and as a summary to accompany residents if sent out for consultation or transferred to acute care.

ANNUAL HEALTH REVIEW FOR LONG-TERM CARE (SEE APPENDIX)

Sending Facility

Include the name and type of institution where applicable. This will assist with maintaining continuity of care, particularly in larger cities with multiple acute care facilities, as well as in the tracking of medical records between facilities.

Power of Attorney / Substitute Decision Maker

As more and more residents in LTC may not be capable of personal care decisions, this information becomes critical to the provision of care. The name, relationship, and contact information of the Power of Attorney/Substitute Decision Maker (POA/SDM) and a photocopy of any POA documents should be in the chart.[7] The resident's capacity for treatment decisions at the time of the annual review should also be documented.

Advance Directives of Care / Treatment Plan

It is recommended that advance directives of care (for residents capable of making treatment decisions) and treatment plans (for those incapable of such decision-making ability) should address resuscitation, intubation, and transfers out of the facility to acute care.[8] Four levels of care are increasingly becoming the standard and are as follows:

Level 1: supportive / palliative care.
Level 2: treatment within the facility.
Level 3: treatment within the facility. Transfer out to hospital if required. No cardiopulmonary resuscitation.
Level 4: as for level 3, including cardiopul-

monary resuscitation.

Active Problems
List of diseases (e.g. Alzheimers, diabetes), disabilities (e.g. visual loss, hemiplegia), and clinical problems (e.g. recurrent falls, weight loss) that need to be attended to or addressed on a regular basis.

Past / Inactive Problems
This section should list past clinical issues not currently requiring clinical attention, e.g. past surgical history, previous fractures, previous delirium.

Course Over the Year
Include a brief description of significant events that have occurred over the past year that have impacted upon the resident's care. This would include ongoing clinical instability, new medical problems, interventions, acute hospitalizations and consults as well as other significant issues affecting the provision of care, such as change of POA, death of a caregiver.

Medications
List current medications and dosages including over-the-counter medications, vitamins, PRN medications and frequency of use, and alternative and/or complementary therapies.[9-10]

Allergies
Indicate the allergy and as well the type of reaction. This should include allergy to medications, food, inhalants, and contactants (e.g. latex).

Diet
Include the type of diet, highlighting any restrictions especially for those residents with dysphagia. This is of particular importance if the resident may be transferred to another facility (acute care, other LTC facility).

Immunization
Review the resident's immunization status and update immunizations where required. In addition, record important information regarding infection control status including resistant organisms (i.e. methicillin-resistant *Staph* aureus – MRSA, vancomycin-resistant enterococcus – VRE) and others (i.e. HIV, hepatitis).

Tuberculosis is re-emerging with increasingly resistant strains. Two-step Mantoux testing is required on admission, but does not need to be repeated on an annual basis unless requested by the public health department in your region. Ensure that the testing has been completed and that the results are known. For those with positive tests, review that the appropriate follow-up was done at the time of the positive test result. This would include review of symptoms, chest radiography, and anti-tuberculin therapy if indicated.

Annual influenza vaccine is recommended and has been shown to reduce acute symptoms, deaths, and complications of influenza infections.

Pneumococcal vaccination is recommended for all residents of LTC facilities, with a one-time booster vaccine after 5 years.[11]

Tetanus toxoid remains recommended for residents in LTC facilities. For those in whom the tetanus status is unknown, or whose last booster was >10 years ago, a single booster is recommended. For those residents who have not received a primary series, consideration should be given to repeating the series, particularly in those at increased risk (i.e. those with large pressure ulcers or skin breakdown).

Pertinent Laboratory Results/ Investigations
This pertains to significant lab results and/or investigations over the year. It is suggested to include a calculated glomerular filtration rate (GFR) based on the patient's age, sex, weight, and serum creatinine according to the Cockroft-Gault formulation. Comment on the frequency of laboratory monitoring for specific medications and/or clinical conditions (e.g. lithium, warfarin, antiepileptics, diabetes, chronic renal failure, etc.)

Targetted Review of Systems
The focus of this section is to identify high-risk problems that require further assessments, monitoring, and adaptations to plans of care. With the increasing incidence of cognitive impairments amongst the LTC population, often the information gathered is from multiple sources which include the resident, caregivers, nursing staff, and allied health professionals where available.

Communication

Document any communication difficulties that may be present, including languages spoken. Residents with advanced dementia often revert to their first spoken language despite being multilingual during their lifetime. Documentation of the type of dysphasia or aphasia present (i.e. expressive vs receptive) is crucial to the provision of care for the resident. Comment on the use of and effectiveness of communication aids used (alphabet board, spacing board, computer devices, voice amplifier), and strategies found useful to enhance the resident's communication (i.e. use of interpreter, directed questions, calm environment).

Appetite / Dysphagia / Weight Loss

Malnutrition is reported to be prevalent in 25-60% of elderly institutionalized persons. Malnutrition is an independant risk factor for increased morbidity and mortality in the nursing home population, both of which may respond to nutritional interventions. Malnutrition is defined as an unintentional weight loss of 5%/month, or 10% over 6 months. Signs of malnutrition include decreased muscle bulk and subcutaneous fat, glossitis, cheilosis, and skin changes including dryness, edema, purpura, depigmentation, and pressure ulcers. Laboratory testing to consider includes albumin, CBC (case finding of anemia, lymphocytopenia<4).[13,14]

Sleep / Energy

Changes in sleep and energy are nonspecific symptoms that if present warrant further assessment to identify the etiology. Typical diseases present atypically in the elderly, and particularly the institutionalized elderly.

Depressive Symptoms

Depression is estimated to affect 25-40% of all institutionalized elderly, yet is often unrecognized due to atypical symptoms and comorbid problems that complicate the presentation. Depression is associated with chronic disease, dementia, and cerebrovascular disease, all of which are common problems faced by nursing home residents. Atypical presentations of depression include lack of mood complaints, chronic pain, unexplained functional decline, new onset anxiety and behavioural problems. Untreated depression leads to significant morbidity and mortality (functional decline, malnutrition, pressure ulcers, falls, and death). Effective treatments are now readily available.)

Problem Behaviours

Persons with dementia exhibit a variety of behavioural problems that benefit from assessment and management by a multi-disciplinary team approach. Many nursing homes are becoming increasingly familiar with rating scales developed for behavioural problems in dementia. One frequently used is the Cohen-Mansfield Agitation Inventory (CMAI), which requires nursing staff to document the presence and frequency of aggressive, non-aggressive, verbal, and nonverbal behaviours over a 7-day period.[17] Alternatively, the Pittsburgh Agitation Scale (PAS) may be used. These tools are invaluable because they help to focus the assessment of the behaviours exhibited.

Functional Status

Documentation of functional abilities on an annual basis will help to make necessary modifications in the resident's daily care (i.e. need for increased assistance with bathing, dressing, transfers, ambulation, and eventually feeding), as well as providing a reference if a rapid change occurs.[18] A gradual functional decline is expected for many LTC residents. More rapid functional decline may alert the physician to the presence of intercurrent illness such as infection, stroke, delirium, or depression.

Falls / Fractures

Falls remain a significant cause of morbidity and mortality in the elderly. It is estimated that 50-60% of institutionalized elderly fall every year, with 15% of falls resulting in serious injury. Reviewing the fall history may identify preventable causes of falls.[19] Treatment strategies are multifactorial and include medication adjustment, environmental strategies to reduce hazards, removal of clutter, use of well-fitting footwear, strength training and the provision of gait aids; these will assist to reduce both the incidence of falls, and the risk of injury. The addition of elemental calcium (1500 mg) and vitamin D (400 IU) should be considered in residents with a history of falls. Bisphonates should be considered in those with confirmed osteoporosis or a previous fracture.[23] Consideration should be given to the use of hip protectors, which have been

shown to minimize injury amongst frequent fallers. Judicious caution should be used with the use of restraints, and many nursing homes are now adopting least restraint policies.[24]

Pain

Chronic pain is common in nursing home residents and has a significant impact on morbidity and mortality. Poor pain control results in impaired ambulation, functional decline, sleep disturbances, decreased socialization, and depression. Pain is often associated with non-malignant conditions in the elderly, such as diabetes, arthritis, cardiovascular diseases, and cerebrovascular disease.[25] Pain severity can be quantified and monitored with the use of various tools. One such tool is the McGill Pain Questionnaire, which has been found to be a useful tool in the elderly.[26,27]

Continence

Bladder scans or post-void catheterization for bladder volumes are useful if symptoms such as overflow incontinence suggest retention. Constipation is a common problem in nursing home residents and is secondary to decreased fluid intake (<1500 ml per day), and inadequate fibre intake. Decreased mobility, neurologic disorders, chronic laxative use, and medications (e.g. narcotics, calcium channel blockers, diuretics) are other contributing factors. Frequent loose or watery stools may be a symptom of fecal impaction with overflow.

Skin

Particular attention should be made to the feet in diabetics[28] and residents with peripheral vascular disease, to identify dry skin, improperly fitting footwear, and the presence of foot ulcers.

Social / Supports

Social supports, family dynamics, and religious, cultural and ethnic beliefs all have a tremendous impact upon the care of the resident. Knowledge of current and/or previous beliefs assists in providing compassionate care and in supporting the resident and their family during admission. Significant changes in support systems should be noted here as they may impact significantly on the well-being of the resident, and may require changes to the plan of care to increase support to the resident.

Other

This includes other significant symptoms or issues affecting the care of the resident.

TARGETTED PHYSICAL EXAMINATION

Weight / Height / BP Lying - Standing

Record vital signs, including a screen for postural hypotension. This is important in particular for ambulatory residents, because postural hypotension can be a significant factor in falls. Detection and treatment of hypertension (both essential and isolated systolic) remain strongly supported with grade A level of evidence up to age 85.

General Appearance

Comment on signs and symptoms of malnutrition, pain, distress, agitation, cooperativeness, alertness, and ability to communicate.

Eyes

An annual examination for glaucoma is recommended (level C), and annual fundoscopic examination if feasible is recommended for all diabetics to screen for diabetic retinopathy (level B).

Ears

Assess grossly for hearing impairment with the whisper test. Otoscopic examination is most beneficial to identify blockage of ear canals with cerumen which can be easily removed by ear syringing and/or curettage.

Oral Hygeine

Assess the oral cavity for mucose membrane, gum disease, abnormalities of the tongue, and dentition and/or dentures. Consider the use of medicated oral rinse, which is recommended for residents with severe gingivitis or those with difficulty cleaning their teeth.[30]

Breast

Mammography is not recommended over age 75, is not recommended in those with life expectancy <5 years, and is often poorly tolerated in other nursing home residents. Clinical breast examination is felt to remain of benefit for the nursing home popula-

tion. Even if intervention is felt to be inappropriate, the identification of clinically significant breast masses will impact on the care of that resident. In some cases a lumpectomy or palliative hormone therapy may help to prevent morbidity from the mass. In others, identification of breast cancer may assist in the management of other complications that may arise, as well as provide important prognostic information to the resident and/or POA/SDM.

Cardiac

Document the cardiac examination including peripheral pulses and the presence or absence of peripheral edema, not only for management but also for baseline status in cases of new problems or concerns.

Respiratory

Comment on significant findings.

Neurological

Folstein mini-mental status examination (MMSE) should be used to assess dementia, particularly in those with early cognitive change.[31] Additional cognitive testing may be added as warranted (i.e. clock drawing, word list generation). Assessment and documentation of reflexes, tone, strength, tremor, gait, and Babinski is important to identify new symptoms, as well as to provide a baseline evaluation in the event of acute changes during the year.

Skin

Examine for areas of pressure, skin breakdown, ulceration, edema, stasis, dryness, and decreased muscle bulk. Comment on feet, nail-care, and footwear.

Abdominal / Rectal

Comment on significant findings if examination indicated by symptoms.

Identification of high-risk Problems/ Investigations/Plan of Care

Document the active clinical problems identified that will be addressed over the coming year. This should include individual disease management (i.e. hypertension, diabetes, congestive heart failure) as well as the assessment and management of high-risk problems (i.e. falls, cognitive decline, weight loss, pain). Comment on investigations and referrals to physicians and allied health professionals where indicated. Routine laboratory assessments for screening in the nursing home resident are no longer recommended. You may, however, consider a serum creatinine and CBC on an annual basis to identify renal impairment and obtain a baseline of hemoglobin for comparison purposes.

CONCLUSION

With the increasing complexity of admission to long-term-care, physicians will need to review current standards of practice and adapt to the changing needs of patients and facilities. This template is an attempt to integrate pertinent geriatric issues into the annual health review for long-term care. By adopting this approach, the annual health review becomes an invaluable tool in the planning of care for the resident. It is hoped that ultimately this will assist in improving quality of care, enhance continuity of care, and improve communication within the long-term-care environment.

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Appendix

SENDING FACILITY:______________________________ POA/SDM:___________________________________
CAPABLE for TREATMENT DECISIONS: YES_____ NO ________
ADVANCE DIRECTIVES:____
ACTIVE PROBLEMS: ____

PAST/INACTIVE PROBLEMS: ____

COURSE OVER THE YEAR: ____

MEDICATIONS: ____

ALLERGIES:____
DIET:____
IMMUNIZATIONS: INFLUENZA date:_____________________PNEUMOCOCCAL date:_____________________
MANTOUX date and response:__________________________OTHERS :_________________________________
PERTINENT LABS / INVESTIGATIONS:

TARGETTED REVIEW OF SYSTEMS:
Communication:____
Appetite/Dysphagia/Weight Loss:____
Sleep /Energy:____
Depressive Symptoms:____
Problem Behaviours:____
Functional Status:____
Falls/Fractures:____
Pain:____
Continence:____
Skin:____
Social/Supports:____
Other:____
TARGETTED PHYSICAL EXAMINATION:
Weight (kg) :_________ Height:_______________ BP: lying____________ Standing_____________
General
Appearance:____
Eyes:____ Ears:____
Oral hygeine :_________________________________ Breast:_______________________________________
Cardiac: heart sounds _________________ Peripheral pulses / edema _______________ Other ________________
Respiratory:____
Neurological: Gait/Mobility ___________________ Reflexes __________________ Babinski___________________
Power ________________________ Tone _______________________________ Other ______________________
MMSE: _____ / 30 . Comment ____
Skin:____
Abdomen/Rectal (if indicated) :____
IDENTIFICATION OF HIGH RISK PROBLEMS AND PLAN OF CARE:

High Risk Problem	Investigations/ Plan of Care

Date of assessment :________________ Signature :_____________________ Name:____________________