Concurrent Disorders in Seniors
A Review of Substance Use in Older Persons With Mental Health Concerns
Dr. Dale Danyluk
Centennial Centre for Mental Health and Brain Injury, Ponoka, Alberta
April 10, 2008

Objectives
• To review substance use in seniors, including alcohol, non-prescription, and prescription substances
• To consider how substance use impacts other illnesses in seniors, including medical problems, dementia, and other psychiatric illnesses
• To review treatment issues as they relate to seniors with concurrent disorders

Picture removed
Introduction
- People aged 65 and over comprise 12.5% of the Canadian population (Statistics Canada 2002)
  - With the large number of aging baby boomers, this proportion is expected to rise
  - Statistics Canada has projected that by 2021 seniors will represent 18.9% of the total population
  - By 2041, seniors will represent 24.9%
Introduction

• Substance use among the older population is largely overlooked and underreported
  • Many factors contribute to this, including presentations that may be atypical and therefore easily missed
  • Medical staff may fail to identify two-thirds of older problem drinkers, as both depression and dementia may be mistaken for substance misuse

Introduction

• In older persons, alcohol use disorders often coexist with mental health disorders
  • The physical and social results of alcohol and smoking behavior become more evident at older ages
  • There is evidence that older people may respond at least as well as younger people to treatment

Picture removed
Epidemiology

- Rates of depression and dysthymia in community-dwelling residents over age 65 is 2% to 4%
- If you look at all depressive symptomatology, not necessarily meeting criteria for major depressive disorder or dysthymia, the rates are 10% to 15% or higher
- Anxiety usually takes the form of generalized anxiety or phobias, but the spectrum also includes panic, obsessions, and somatization disorders
  - Rates range from 4% in community samples to up to 40% in inpatient or outpatient geriatric services

Epidemiology

- Research has shown that seniors with alcohol use problems suffer from more psychiatric disorders than does the general population
  - According to the Epidemiological Catchment Area study, people diagnosed with an alcohol abuse or dependence disorder were 2.9 times more likely to be diagnosed with another mental disorder at some time during their life

Epidemiology

- Using DSM-IV criteria, the National Longitudinal Alcohol Epidemiologic Survey reported a prevalence of alcohol abuse and dependence at 1.2% for men and 0.3% for women in the over 65 age group
  - In contrast, rates of heavy drinking among older adults are considerably higher, demonstrating that 15% to 20% of men and 8% to 10% of women drink at risk or at problem drinking levels
Concern over the use and misuse of prescription drugs has risen in recent years. Canadian seniors purchase 45% of all prescription drugs even though they comprise only about 12% of the population. 84% of seniors living in a private household, and 96% of seniors living in an institution had taken some form of prescribed medication during the two days prior to the survey.

Older persons frequently use both alcohol and prescription medications. In one report, 86.9% of Finnish adults aged 75 or older used both alcohol and medications on a regular basis including those known to have an interaction with alcohol. Data from an American study found that 19% were using alcohol and medications that interacted with alcohol at the same time.

Certain gender differences are recognized in the substance use literature. Men consume larger quantities of alcohol and drink more often than women at all ages. Women may be at greater risk of becoming dependent on prescription drugs. In one study of inpatients in a substance dependence program, females outnumbered males 7 to 3 for prescription drug dependence. 80% were dependent on sedative or hypnotic drugs. 83% of these were benzodiazepines.
Epidemiology

- Less than 1% of Canadian seniors report using illegal drugs such as marijuana, cocaine, and heroin (Statistics Canada 2000)
- The Epidemiological Catchment Area data suggest a lifetime prevalence rate of 1.6% for illegal drug users over the age of 65
- One theory proposed a “maturing out” where drug dependence is infrequent in seniors because they either grow out of their narcotic addiction due to adverse consequences or they die

Epidemiology

- Although smoking rates decrease with age (primarily because of differential mortality among smokers and nonsmokers), one in every five smokers is age 50 or older
- Approximately 15.2% of community-dwelling individuals age 65 to 74 and 8.4% of those age 75 and older are smokers
Changes With Aging

- Decrease in
  - Lean body mass (up to 80%)
  - Total body water (10% to 15%)
  - Lung capacity
  - Liver mass
  - Kidney function
  - Height
  - Bone density
- Increase in
  - Total body fat (average increase 35%)
  - Age

Changes With Aging

- With physiological aging, there is a reduction in the proportion of body water, resulting in an increased potency of alcohol in seniors
- Slower metabolism results in prolonged effects on the central nervous system and greater susceptibility to problem substance use

Picture removed
Risk Factors

- Adjustment to new roles
  - Retired
  - Caregiver to parents or spouse
- And losses
  - Health
  - Independence
  - Death of family members
- Are risk factors for substance use (and psychiatric) problems

Risk Factors

- Other losses
  - Loss of standard of living and social status if retirement income is less than pre-retirement income
  - Empty nest syndrome
  - Loss of health
  - Loss of cognitive functions
  - Loss of motor abilities and functions
  - Loss of vigor
  - Loss of sexual drive and/or performance
  - Loss of meaning of life
  - Loss of interest in things previously valued

Risk Factors

- Adults over the age of 65 are more likely to be affected by at least one chronic illness, and be prescribed medications for underlying medical problems
- Alcohol interacts with a number of commonly prescribed medications, and has direct effects on metabolic capacity of the liver, resulting in increased potential for considerable medication side effects and interactions in geriatric patients
Risk Factors

- Seniors have easier access to prescription medications due to more prescriptions written and more frequent contact with health care providers
- Seniors may self-medicate pain and insomnia with alcohol, prescription and over-the-counter medications and/or other drugs

Risk Factors

- Increased risk for alcohol abuse in later life
  - Single
  - Relatively well-educated
  - Male
  - Living alone
  - Personal history of prior alcohol use or abuse

Risk Factors

- Chronic alcohol use is associated with significant psychiatric comorbidities
  - Affective disorders
    - Depression
    - Bipolar
    - Anxiety
  - Cognitive impairment
  - Personality disorders
  - Schizophrenia
Risk Factors - Depression

- Female
- Prior history of depression
- Bereavement
- Living alone
- Weak social supports
- Caregiver burden
- Nursing home admission
- Cognitive decline

- Medications
- Anxiety
- Alcohol abuse
- Medical conditions
- Physical functional deficits
- Limitations of activity

Risk Factors

- Older adults have the highest risk of death by suicide of all age groups in the United States
- Suicidologists have cause to predict that a dramatic increase in suicide rates and total number of suicides will occur over the next several decades

Risk Factors

- Suicide is the 11th leading cause of death in the United States
- Older adults are at higher risk for suicide than any other segment of the population, with the oldest-old (defined as age 85 and older) was even higher
- White men aged 85 and over commit suicide at nearly six times the national age-adjusted rate
- On the other hand, attempted suicide is far less frequent in later life than in younger age groups
Risk Factors - Suicide

- Male
- Over 45
- Divorced or widowed
- Unemployed
- Chronic illness
- Hopelessness
- Definite plan

- Major depression
- Schizophrenia
- Severe anxiety
- Panic attacks
- Severe personality disorder
- Substance abuse
- History of attempts

Picture removed

Picture removed
Psychiatric Concerns

- Depression
- Anxiety
- Dementia
- Suicide

Psychiatric Concerns – Depression

- Depression is by far the most common disorder comorbid with substance abuse, but it is difficult to determine the nature of the relationship between the two
  - Are people depressed because they drink, or do they drink because they are depressed?
- One useful categorization emphasizes the timing of the depression
  - If the depression begins before a drinking episode or during a period of abstinence, then it is considered “primary” depression
  - Secondary depression refers to depression that develops as a consequence of drinking

Psychiatric Concerns – Depression

- There are several types of depression
  - Major depressive disorder, dysthymia, depression with psychotic features
- Review psychiatric history
  - History of depression, history of mania
- Review medical conditions
  - Many can cause depressive symptoms
    - Diabetes, thyroid disease, cardiac disease, malignancy
- Review medications
  - Cardiac medications, steroids, alcohol
Substance-Induced Depression

- Analgesics
  - Narcotics
- NSAIDS
  - Ibuprofen, Naproxen
- Antihypertensives
  - Propranolol
- Antipsychotics
  - Haloperidol
- Anxiolytics
  - Benzodiazepines, Alcohol

- Cancer chemo
- Sleeping pills
  - Temazepam
- Others
  - Prednisone
  - Ranitidine
  - Thiazide diuretics

Psychiatric Concerns – Depression

- Questions to explore symptoms of depression
- SIG E CAPS
  - Sleep
  - Interest
  - Guilt
  - Energy
  - Concentration
  - Affect, appetite
  - Psychomotor slowed, agitated
  - Suicide

Psychiatric Concerns – Anxiety

- Anxiety disorders are common to seniors, but they are not always recognized or treated
- Anxiety symptoms themselves can lead to medical complications, for example cardiac arrhythmia or insomnia
Psychiatric Concerns – Anxiety
- Spectrum disorder
  - Phobias, generalized anxiety, panic, obsessive-compulsive disorder, post-traumatic stress
- Often associated with other disorders
  - Depression, dementia
- Can increase risk for medical problems
  - Hypertension, heart disease, respiratory disease
- Medications taken for anxiety can contribute to
  - Falls, fractures, cognitive impairment
- People often self-medicate with alcohol, which ultimately can make anxiety worse

Psychiatric Concerns – Dementia
- It is estimated that 5% of people over the age of 65 and 20% of people over the age of 80 will show some form of dementia
- It is often difficult to determine whether a cognitive deficit observed in a senior is due to
  - Substance use problems
  - Medical problems
  - Aging

Psychiatric Concerns - Dementia
- Several types
  - Dementia of the Alzheimer’s type most common
  - Vascular dementia, Lewy Body dementia, Frontotemporal
  - Alcohol-induced persisting dementia
- Rule out treatable causes
  - Depression, medical problems
- Review medications
  - Psychoactive medications, pain meds, others
Psychiatric Concerns - Dementia

- Alcohol-induced persisting dementia
  - Associated with heavy alcohol intake for prolonged period (10 to 20 years)
  - Wernicke’s encephalopathy – thiamine deficiency
  - Korsakoff’s psychosis – persisting dementia
  - Confabulation a prominent sign
  - Anterograde amnesia (unable to make new memories)
  - Retrograde amnesia as well

---

Psychiatric Concerns – Suicide

- Older people in general have high suicide rates compared to other age groups
- Since problem alcohol use and depression are implicated in suicide, and given the high rate of suicide in older adults, substance use treatment providers as well as other health care professionals need to be sensitive to the presence of suicidal ideation in older clients

---

Psychiatric Concerns - Suicide

- Depression is the most common psychiatric diagnosis in elderly suicide victims, unlike the younger adult in whom substance abuse with comorbid mood disorder is encountered most frequently
- Substance use disorders, particularly alcohol abuse and dependence, are the second most common psychiatric disorder associated with completed elder suicide
Psychiatric Concerns - Suicide

- Ask directly
  - Have you ever had thoughts that life was not worth living?
  - Have you ever thought of harming yourself?
- Keep pursuing the questions
  - Have you done more than just thought about it?
  - How would you do it?
  - Have you taken steps to get whatever you would need to do it?
  - What has stopped you so far?

Substance Use - Introduction

- Substance use and dependence in the geriatric population has been identified as the fastest growing health problem in the United States, yet these conditions are frequently overlooked by health care providers
- Projected estimates indicate that the problem is likely to rise in coming years as the population of geriatric patients continues to expand
Substance Use - Introduction

- In addition to increases that follow from the growth of the elderly population, the prevalence of late-life addiction is predicted to increase because of cohort changes.
- The current cohort of 30- to 50- year-old people represents a group who were raised during the 1950’s and 1960’s and, as such, participated in the increased use of and addiction to heroin, cocaine, tobacco, and alcohol.

Substance Use - Alcohol

- Most seniors do not abuse substances, however, for those with substance use problems, alcohol is the substance most commonly used.

Substance Use - Alcohol

- Alcohol dependence is described as a pattern of drinking associated with at least three of the following occurring in the same 12-month period: tolerance, withdrawal symptoms, lack of control, preoccupation with acquisition or use, desire or unsuccessful efforts to quit, continued use despite adverse effects.
- These symptoms need to be associated with impairment in social, occupational, or recreational activities.
Substance Use - Alcohol

- Alcohol abuse is a maladaptive pattern of drinking associated with at least one of the following: failure to fulfill obligations, drinking in hazardous situations or causing legal problems, or continued use despite social or occupational problems.

Substance Use - Alcohol

- Additional care is required when applying DSM-IV diagnostic criteria to seniors
  - Seniors can experience significant problems with even low amounts of alcohol intake
  - Tolerance and withdrawal need not be present for there to be a problem

Substance Use - Alcohol

- There appear to be at least two broad categories of senior problem drinkers
  - Early-onset drinkers comprise roughly two-thirds of the group
  - Late-onset drinkers make up the other third
Substance Use - Alcohol

- Early-onset drinkers
  - Usually have a lengthy history of alcohol-related problems
  - Started before age 40
  - Drink to intoxication
  - History of treatment for alcohol use
  - Less family and social support
  - More difficulties with employment (previous or current)
  - Considered to be alcoholics who have aged

Substance Use - Alcohol

- Late-onset drinkers
  - Developed an alcohol problem after age 40
  - Often a reaction to losses and life changes associated with aging
  - Fewer behavioral problems
  - More supportive social network
  - Better relationships with family
  - Less alcohol-related health problems
  - Can be more responsive to treatment

Substance Use - Alcohol

- Liver disease is probably the most well known and widely studied medical problem associated with excessive alcohol use
- Liver problems include hepatitis, fatty liver, and cirrhosis, all of which interfere with the vital metabolic processes necessary for good health
- In one study, 50% of the elderly patients with cirrhosis died within a year of diagnosis
- The problem of alcohol-related liver disease increases with age
Substance Use - Alcohol
- It is difficult to specify the extent to which heavy drinking affects the heart, since heart attacks and heart disease are generally associated with age-related changes, especially in men
- Alcohol abuse frequently increases blood pressure
- Alcohol abuse also increases risks of cerebrovascular problems, including strokes and intracranial bleeding

Substance Use - Alcohol
- Malnutrition and vitamin deficiencies are common in heavy drinkers
- Sometimes the calories they consume through alcohol appease their hunger, other times they neglect to prepare a meal or are unaware that they should do so
- With poor nutrition, those with alcohol use problems may experience a suppression of the immune system and be at increased risk of infection
- Vitamin deficiencies can lead to peripheral neuropathy, perceived as tingling then numbness in the extremities

Substance Use - Alcohol
- The risk for cancer increases with abuse of alcohol, including
  - Breast cancer in women
  - Prostate cancer in men
  - Cancer of the
    - Larynx
    - Esophagus
    - Colon
    - Stomach
Perhaps a unique problem with the elderly is the misuse of prescription and over-the-counter (OTC) medications. This includes the misuse of substances such as sedatives and hypnotics, narcotic and non-narcotic analgesics, diet aids, decongestants, and a wide variety of other OTC medications.

To highlight the issue, 32% of community-dwelling elderly are taking an analgesic, 8.9% are taking an antidepressant, and 10.4% are taking a benzodiazepine.

Key experts reported that problem use with prescription medications is often observed with:
- Morphine or codeine-based products
- Anti-anxiety medications such as benzodiazepines
- Sleeping aids including sedatives and tranquilizers
### Substance Use - Prescription

- **Prescription medications commonly used by seniors**
  - Blood pressure medications
    - 45% of women over 65, 35% of men
  - Pain relievers
    - 33% of women over 65, 30% of men
  - Diuretics
  - Stomach remedies
  - Laxatives

### Substance Use - Prescription

- **Other factors that impact excessive prescribing of medications**
  - Dependence on the use of medications rather than counseling or other alternative treatment regimens such as diet or exercise
  - Treatment of side effects of medications with additional medications
  - Prescriptions that are renewed for longer than is necessary
  - Seniors think medications are not harmful because they are prescribed
  - Seniors expect medication at the first sign of ailment

### Substance Use - Prescription

- **Other factors that can contribute to misuse of medication among seniors**
  - Unaware of or misunderstand the intended use of the medication
  - May not recognize that generic or over-the-counter drug may be the same as prescribed drug, inadvertently leading to double dosing
  - Unaware of interactions between multiple prescription medications or in combination with alcohol
Substance Use - Prescription

- One pattern of medication misuse may be due to misinformation or misunderstanding where seniors may
  - Forget to take their medications
  - Take a double dose to make up for missing it
  - Take it at the wrong time
  - Take an improper amount
  - Misunderstand the instructions on the bottle
  - Not be able to read the instructions on the bottle
  - Not get the prescription refilled either because they cannot afford it or because they do not think they need it as they feel fine

Substance Use - Prescription

- The researchers suggested that stereotypes may play a role in dependence behavior, particularly with the choice of substance involved
  - Women may consider drinking to be wrong but see no problem with reliance on a doctor’s prescription
  - Men may suffer equally as much from stress, anxiety, or sleeping disorders but they are less likely to go to the doctor for such complaints and more likely to use alcohol

Substance Use – Tobacco

- Studies have shown that smoking is a risk factor for both cognitive decline and dementia
- Lifetime exposure to smoking was associated with poorer cognitive performance, independent of atherosclerosis
Substance Use – Tobacco
- Addiction to smoking in older adults is associated with
  - Worse physical health
  - Mortality
  - Depression
  - Respiratory disease
  - Cancers

Substance Use - Illicit
- Less than 1% of Canadian seniors report using illicit drugs
  - Marijuana
  - Cocaine
  - Heroin

Picture removed
Assessment – Geriatric Psychiatry

- Identification
- Reliability of informant
- Chief complaint
- History of present illness
- Past medical history
- Past psychiatric history
- Medications
- Allergies
- Drug and alcohol history
- Social history
- Physical exam
- Functional status
- Mental status
- Formulation
- Provisional diagnosis
- Differential diagnosis
- Investigations
- Management plan

Assessment

- Anxiousness or irritability
- Memory loss
- New problems making decisions
- Difficulty concentrating or paying attention
- Lack of interest in usual activities
- Sadness or depression
- Mood swings
- Chronic pain
- Problems with money or the police
- Falls, bruises, burns
- Incontinence
- Headaches
- Dizziness
- Poor hygiene
- Poor nutrition, changes in eating habits
- Out of touch with family and friends
- Suicidal thoughts
- Strange response to medications
Assessment
- Mental health screening should also be done to test such areas as
  - Memory and cognitive impairments
  - Depression and anxiety
  - Other psychiatric illnesses

Assessment
- Screening tools for alcohol include the CAGE and the Michigan Alcohol Screening Test – Geriatric Version (MAST-G)
  - The MAST-G is specific to seniors but requires more time than the CAGE
  - These instruments are limited by their reliance on self-reports
Assessment

- The CAGE
  - C
    - Have you ever felt that you ought to CUT DOWN on your drinking?
  - A
    - Have people ANNOYED you by criticizing your drinking?
  - G
    - Have you ever felt bad or GUILTY about your drinking
  - E
    - Have you ever had a drink first thing in the morning (EYEOPENER) to steady your nerves or get rid of a hangover?

Assessment

- MAST-G (Score 0 to 10: >3 = problem)
  - Do you ever underestimate how much you drink?
  - After drinking do you ever skip meals?
  - Does drinking decrease shakes or tremors?
  - Does alcohol make you not remember parts of the day and night?
  - Do you drink to relax or calm your nerves?
  - Do you drink to take your mind off problems?
  - Have you ever increased your drinking after a loss in your life?
  - Has a doctor or nurse said they were worried about your drinking?
  - Have you ever made rules to manage your drinking?
  - When lonely, does drinking help?

Assessment

- Screening tests often used
  - MMSE
  - Clock drawing task
  - Geriatric Depression Scale
  - Beck Depression Inventory
  - Burns Anxiety Inventory
Folstein Mini-Mental State Examination

- Date
- Place
- Register 3 objects
- Serial sevens
- Recall 3 objects
- Naming

- Repeating
- Verbal commands
- Written commands
- Writing
- Drawing
Management

- Treatment must take into account certain factors associated with age
- Seniors are at times more reluctant to seek treatment due to personal and societal views of substance dependence as a moral weakness
- Treatments that use a confrontational approach often depend on the patient accepting the label “alcoholic” and run the risk of shaming and stigmatizing the senior

Management

- They feel more at ease with people of their own generation because they have experienced the same historical and social context
- As well, seniors may need more time to tell their story especially if they are not accustomed to discussing sensitive, personal issues with other people

Management

- Differences within an age group are sometimes larger than differences between age groups
- Although there were only small differences between age groups, there were prominent differences between the older early-onset and the older late-onset participants, with late-onset drinkers exhibiting less consumption on an average day, and early-onset drinkers tending to drink more frequently
Management

- Zimberg (1996) highlighted three steps to an age-specific approach for treatment of seniors
  - The stresses associated with aging must be identified and dealt with
  - An accurate diagnosis must be made in order to rule out the existence of other factors that could affect treatment outcomes (e.g., depression)
  - Seniors should be encouraged to find activities and interests and create a new social support structure

- Cognitive-behavioral treatment approaches address the thoughts and beliefs that underlie substance use problems
- Psychosocial treatment approaches attempt to build self-efficacy and social networks before targeting problems with substance use
- Brief interventions that are designed to increase motivation to change are advised for seniors experiencing mild to moderate substance use problems
  - Brief interventions can be used by a variety of professionals

- Strategies in brief alcohol counseling generally include an expression of concern, feedback to patients linking their drinking and health, and explicit advice to cut down
- Some recommend the “5 A’s”
  - Ask
  - Assess
  - Advise
  - Agree
  - Assist
Management - Depression
- Psychotherapy
  - Cognitive Behavioral Therapy, supportive
- Antidepressants
  - Selective serotonin reuptake inhibitors (SSRI)
  - Others
- Other medications
  - Sometimes require medications for anxiety, sleep

Factors To Consider In Choosing An Antidepressant
- Efficacy
- Speed of onset
- Profile of symptoms
- Ease of administration
- Tolerability
- Safety
- Interactions
- Lethality in overdose
- Cost

Management - Anxiety
- Psychotherapy
  - Cognitive Behavioral Therapy
- Antidepressants
  - Selective serotonin reuptake inhibitors (SSRI)
  - Others
- Other medications
  - Sometimes require medications for sleep
  - Buspirone
Management - Dementia

- Review safety issues, personal and support system strengths
- Cholinesterase inhibitors
  - Aricept, etc.
- Memantine
  - Ebixa
- Frequently accompanied by depression, behavioral disturbances
  - Antidepressants, mood stabilizers, Aricept

Management

- Pharmacological interventions that have been effective in reducing substance use in middle-aged adults have not yet been adequately tested on the senior population
- The use of medications promoting abstinence has not been studied extensively in elderly subjects

Management - Alcohol

- Medications for alcohol dependence
  - Disulfiram
    - Generally avoided
  - Naltrexone
    - Some mixed results in older patients
  - Acamprosate
    - Again some mixed results with some studies showing efficacy in preventing relapse in a group age 50 to 74
Management - Tobacco

- Evidence suggests that smokers age 65 or over attempting to stop smoking achieve better 1 year success than younger groups
- A review of evidence-based smoking cessation programs for older adults suggested that brief counseling and medical advice are effective in aiding smoking cessation
- Nicotine replacement therapy appeared to be effective and safe in older persons
- Bupropion has been shown to be effective, but given the risk of seizures, nicotine replacement is probably preferred
Summary
- Prevalence of substance misuse in older people is underestimated
- For seniors, the substance use problems most frequently observed are with alcohol, but also prescription medications
- Although illicit drugs are not currently a major problem for seniors, it is anticipated that problems with their use will emerge as baby boomers enter their senior years

Summary
- Seniors’ risk factors include multiple losses, such as loss of health, independence, and family or social network
- These losses may contribute to social isolation and loneliness
- The development of relationships and social networks are important aspects of treatment

Summary
- Family, physicians, and pharmacists should monitor medication use and be aware of concurrent use of alcohol and other prescription medication, OTC medications, or herbal remedies
- Available evidence shows that the older population do at least as well as younger people on treatment programs, but these programs are not as readily available to older persons as to younger ones
Thank you for your participation
For information about Telemental Health education sessions:
• (403) 783-7736
• www.amhb.ab.ca
  ➢ Initiatives
  ➢ Telemental Health
  ➢ Telelearning
  ➢ Current Telelearning Sessions