

## The Geriatric Depression Scale (GDS)

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**WHY:** Depression is common in late life, affecting nearly 5 million of the 31 million Americans aged 65 and older with clinically significant depressive symptoms reaching 13% in older adults aged 80 and older (Blazer, 2009). Major depression is reported in 8-16% of community dwelling older adults, 5-10% of older medical outpatients seeing a primary care provider, 10-12% of medical-surgical hospitalized older adults with 23% more experiencing significant depressive symptoms (Blazer, 2009). Recognition in long-term care facilities is poor and not consistent amongst studies (Blazer, 2009).

Depression is not a natural part of aging. Depression is often reversible with prompt recognition and appropriate treatment. However, if left untreated, depression may result in the onset of physical, cognitive, functional, and social impairment, as well as decreased quality of life, delayed recovery from medical illness and surgery, increased health care utilization, and suicide.

**BEST TOOL:** While there are many instruments available to measure depression, the Geriatric Depression Scale (GDS), first created by Yesavage, et al., has been tested and used extensively with the older population. The GDS Long Form is a brief, 30-item questionnaire in which participants are asked to respond by answering yes or no in reference to how they felt over the past week. A Short Form GDS consisting of 15 questions was developed in 1986. Questions from the Long Form GDS which had the highest correlation with depressive symptoms in validation studies were selected for the short version. Of the 15 items, 10 indicated the presence of depression when answered positively, while the rest (question numbers 1, 5, 7, 11, 13) indicated depression when answered negatively. Scores of 0-4 are considered normal, depending on age, education, and complaints; 5-8 indicate mild depression; 9-11 indicate moderate depression; and 12-15 indicate severe depression.

The Short Form is more easily used by physically ill and mildly to moderately demented patients who have short attention spans and/or feel easily fatigued. It takes about 5 to 7 minutes to complete.

**TARGET POPULATION:** The GDS may be used with healthy, medically ill and mild to moderately cognitively impaired older adults. It has been extensively used in community, acute and long-term care settings.

**VALIDITY AND RELIABILITY:** The GDS was found to have a 92% sensitivity and a 89% specificity when evaluated against diagnostic criteria. The validity and reliability of the tool have been supported through both clinical practice and research. In a validation study comparing the Long and Short Forms of the GDS for self-rating of symptoms of depression, both were successful in differentiating depressed from non-depressed adults with a high correlation ( $r = .84, p < .001$ ) (Sheikh & Yesavage, 1986).

**STRENGTHS AND LIMITATIONS:** The GDS is not a substitute for a diagnostic interview by mental health professionals. It is a useful screening tool in the clinical setting to facilitate assessment of depression in older adults especially when baseline measurements are compared to subsequent scores. It does not assess for suicidality.

**FOLLOW-UP:** The presence of depression warrants prompt intervention and treatment. The GDS may be used to monitor depression over time in all clinical settings. Any positive score above 5 on the GDS Short Form should prompt an in-depth psychological assessment and evaluation for suicidality.

### MORE ON THE TOPIC:

Best practice information on care of older adults: [www.ConsultGerIRN.org](http://www.ConsultGerIRN.org).

The Stanford/VANIA Aging Clinical Resource Center (ACRC) website. Retrieved July 2, 2012, from <http://www.stanford.edu/~yesavage/ACRC.html>. Information on the GDS. Retrieved July 2, 2012, from <http://www.stanford.edu/~yesavage/GDS.html>.

Blazer, D.G. (2009). Depression in late life: Review and commentary. *FOCUS*, 7(1), 118-136.

Greenberg, S.A. (2007). How to Try This: The Geriatric Depression Scale: Short Form. *ANN*, 107(10), 60-69.

Harvath, T.A., & McKenzie, G. (2012). Depression in Older Adults. In M. Boltz, E. Capezuti, T.T. Fulmer, & D. Zwicker (Eds.), A. O'Meara (Managing Ed.), *Evidence-based geriatric nursing protocols for best practice* (4th ed., pp. 135-162). NY: Springer Publishing Company, LLC.

Koenig, H.G., Meador, K.G., Cohen, J.J., & Blazer, D.G. (1988). Self-rated depression scales and screening for major depression in the older hospitalized patient with medical illness. *JAGS*, 36, 699-706.

Sheikh, J.I., & Yesavage, J.A. (1986). Geriatric Depression Scale (GDS). Recent evidence and development of a shorter version. In T.L. Brink (Ed.), *Clinical Gerontology: A Guide to Assessment and Intervention* (pp. 165-173). NY: The Haworth Press, Inc.

Yesavage, J.A., Brink, T.L., Rose, T.L., Lum, O., Huang, V., Adey, M.B., & Leirer, V.O. (1983). Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research*, 17, 37-49.

# Geriatric Depression Scale: Short Form *BL's Form*

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life?  YES /  NO
2. Have you dropped many of your activities and interests? YES  /  NO
3. Do you feel that your life is empty? YES /  NO
4. Do you often get bored? YES /  NO
5. Are you in good spirits most of the time?  YES /  NO *Yes*
6. Are you afraid that something bad is going to happen to you? YES  /  NO
7. Do you feel happy most of the time?  YES /  NO
8. Do you often feel helpless? YES /  NO
9. Do you prefer to stay at home, rather than going out and doing new things? YES /  NO
10. Do you feel you have more problems with memory than most? YES  /  NO
11. Do you think it is wonderful to be alive now?  YES /  NO
12. Do you feel pretty worthless the way you are now? YES /  NO
13. Do you feel full of energy? YES /  NO *- I am tired because I am dd.*
14. Do you feel that your situation is hopeless? YES /  NO
15. Do you think that most people are better off than you are? YES /  NO

Answers in **bold** indicate depression. Score 1 point for each bolded answer.

A score > 5 points is suggestive of depression.

A score ≥ 10 points is almost always indicative of depression.

A score > 5 points should warrant a follow-up comprehensive assessment.

*Score of 1 - Not depressed.*

Source: <http://www.stanford.edu/~yesavage/GDS.html>

This scale is in the public domain.

*The Hartford Institute for Geriatric Nursing would like to acknowledge the original author of this Try This, Lenore Kurlowicz, PhD, RN, CS, FAAN, who made significant contributions to the field of geropsychiatric nursing and passed away in 2007.*



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CLINICAL NURSING WEBSITE [www.ConsultGerRN.org](http://www.ConsultGerRN.org)

# Fulmer SPICES: An Overall Assessment Tool for Older Adults

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Best Practices in Nursing Care to Older Adults from The Hartford Institute for Geriatric Nursing, New York University, College of Nursing

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**WHY:** Normal aging brings about inevitable and irreversible changes. These normal aging changes are partially responsible for the increased risk of developing health-related problems within the elderly population. Prevalent problems experienced by older adults include: sleep disorders, problems with eating or feeding, incontinence, confusion, evidence of falls, and skin breakdown. Familiarity with these commonly-occurring disorders helps the nurse prevent unnecessary iatrogenesis and promote optimal function of the aging patient. Flagging conditions for further assessment allows the nurse to implement preventative and therapeutic interventions (Fulmer, 1991; Fulmer, 1991).

**BEST TOOL:** Fulmer SPICES, developed by Terry Fulmer, PhD, APRN, FAAN at New York University College of Nursing, is an efficient and effective instrument for obtaining the information necessary to prevent health alterations in the older adult patient (Fulmer, 1991; Fulmer, 1991; Fulmer, 2001). SPICES is an acronym for the common syndromes of the elderly requiring nursing intervention:

- S is for Sleep Disorders
- P is for Problems with Eating or Feeding
- I is for Incontinence
- C is for Confusion
- E is for Evidence of Falls
- S is for Skin Breakdown

**TARGET POPULATION:** The problems assessed through SPICES occur commonly among the entire older adult population. Therefore, the instrument may be used for both healthy and frail older adults.

**VALIDITY AND RELIABILITY:** The instrument has been used extensively to assess older adults in the hospital setting, to prevent and detect the most common complications (Fulmer, 2001; Lopez, et al, 2002; Pfaff, 2002; Turner, J., et al, 2001; NICHE). Psychometric testing has not been done.

**STRENGTHS AND LIMITATIONS:** The SPICES acronym is easily remembered and may be used to recall the common problems of the elderly population in all clinical settings. It provides a simple system for flagging areas in need of further assessment and provides a basis for standardizing quality of care around certain parameters. SPICES is an alert system and refers to only the most frequently-occurring health problems of older adults. Through this initial screen, more complete assessments are triggered. It should not be used as a replacement for a complete nursing assessment.

## Fulmer SPICES: An Overall Assessment Tool for Older Adults

Patient Name: B.L. Date: \_\_\_\_\_

SPICES EVIDENCE

Sleep Disorders/ Yes \_\_\_\_\_

Problems with Eating or Feeding/ No \_\_\_\_\_

Incontinence/ No \_\_\_\_\_

Confusion/ No \_\_\_\_\_

Evidence of Falls/ No \_\_\_\_\_

Skin Breakdown/ Yes \_\_\_\_\_

*— Yes to sleeping problems*

*— Yes to skin Problems due to Cancer*

Adapted from Fulmer, T. (1991). The Geriatric Nurse Specialist Role: A New Model. Nursing Management, 22(3), 91- 93. © Copyright Lippincott Williams & Wilkins, <http://lww.com>.

**MORE ON THE TOPIC:**

Best practice information on care of older adults: [www.GeroNurseOnline.org](http://www.GeroNurseOnline.org).

Fulmer, T. (1991). The Geriatric Nurse Specialist Role: A New Model. *Nursing Management*, 22(3), 91-93.

Fulmer, T. (1991). Grow Your Own Experts in Hospital Elder Care. *Geriatric Nursing*, March/April 1991, 64-66.

Fulmer, T. (2001). The geriatric resource nurse: A model of caring for older patients. *American Journal of Nursing*, 102, 62.

Lopez, M., Delmore, B., Ake, J., Kim, Y., Golden, P., Bier, J., & Fulmer, T. (2002). Implementing a Geriatric Resource Nurse Model. *Journal of Nursing Administration*, 32(11), 577-585.

Nurses Improving the Care of the Hospitalized Elderly (NICHE) project at the Hartford Institute for Geriatric Nursing, <http://www.hartfordign.org>.

Pfaff, J. (2002). The Geriatric Resource Nurse Model: A culture change. *Geriatric Nursing*, 23(3), 140-144.

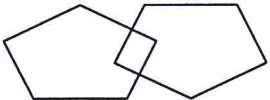
Turner, J. T., Lee, V., Fletcher, K., Hudson, K., & Barton, D. (2001). Measuring quality of care with an inpatient elderly population: The geriatric resource nurse model. *Journal of Gerontological Nursing*, 27(3), 8-18.

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## Mini-Mental State Examination (MMSE)

Patient's Name: B.L. Date: \_\_\_\_\_

***Instructions:*** Ask the questions in the order listed. Score one point for each correct response within each question or activity.

Maximum Score	Patient's Score	Questions
5	5	"What is the year? Season? Date? Day of the week? Month?"
5	5	"Where are we now: State? County? Town/city? Hospital? Floor?"
3	3	The examiner names three unrelated objects clearly and slowly, then asks the patient to name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible. Number of trials: <u>1</u>
5	3	"I would like you to count backward from 100 by sevens." (93, 86, 79, 72, 65, ...) Stop after five answers. Alternative: "Spell WORLD backwards." (D-L-R-O-W)
3	3	"Earlier I told you the names of three things. Can you tell me what those were?"
2	2	Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1	1	"Repeat the phrase: 'No ifs, ands, or buts.'"
3	3	"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1	1	"Please read this and do what it says." (Written instruction is "Close your eyes.")
1	1	"Make up and write a sentence about anything." (This sentence must contain a noun and a verb.)
1	1	"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.) 
30	28	TOTAL

(Adapted from Rovner & Folstein, 1987)

## Instructions for administration and scoring of the MMSE

### Orientation (10 points):

- Ask for the date. Then specifically ask for parts omitted (e.g., "Can you also tell me what season it is?"). One point for each correct answer.
- Ask in turn, "Can you tell me the name of this hospital (town, county, etc.)?" One point for each correct answer.

### Registration (3 points):

- Say the names of three unrelated objects clearly and slowly, allowing approximately one second for each. After you have said all three, ask the patient to repeat them. The number of objects the patient names correctly upon the first repetition determines the score (0-3). If the patient does not repeat all three objects the first time, continue saying the names until the patient is able to repeat all three items, up to six trials. Record the number of trials it takes for the patient to learn the words. If the patient does not eventually learn all three, recall cannot be meaningfully tested.
- After completing this task, tell the patient, "Try to remember the words, as I will ask for them in a little while."

### Attention and Calculation (5 points):

- Ask the patient to begin with 100 and count backward by sevens. Stop after five subtractions (93, 86, 79, 72, 65). Score the total number of correct answers.
- If the patient cannot or will not perform the subtraction task, ask the patient to spell the word "world" backwards. The score is the number of letters in correct order (e.g., dlrow=5, dlrow=3).

### Recall (3 points):

- Ask the patient if he or she can recall the three words you previously asked him or her to remember. Score the total number of correct answers (0-3).

### Language and Praxis (9 points):

- Naming: Show the patient a wrist watch and ask the patient what it is. Repeat with a pencil. Score one point for each correct naming (0-2).
- Repetition: Ask the patient to repeat the sentence after you ("No ifs, ands, or buts."). Allow only one trial. Score 0 or 1.
- 3-Stage Command: Give the patient a piece of blank paper and say, "Take this paper in your right hand, fold it in half, and put it on the floor." Score one point for each part of the command correctly executed.
- Reading: On a blank piece of paper print the sentence, "Close your eyes," in letters large enough for the patient to see clearly. Ask the patient to read the sentence and do what it says. Score one point only if the patient actually closes his or her eyes. This is not a test of memory, so you may prompt the patient to "do what it says" after the patient reads the sentence.
- Writing: Give the patient a blank piece of paper and ask him or her to write a sentence for you. Do not dictate a sentence; it should be written spontaneously. The sentence must contain a subject and a verb and make sense. Correct grammar and punctuation are not necessary.
- Copying: Show the patient the picture of two intersecting pentagons and ask the patient to copy the figure exactly as it is. All ten angles must be present and two must intersect to score one point. Ignore tremor and rotation.

(Folstein, Folstein & McHugh, 1975)

## Interpretation of the MMSE

Method	Score	Interpretation
Single Cutoff	<24	Abnormal
Range	<21	Increased odds of dementia
	>25	Decreased odds of dementia
Education	21	Abnormal for 8 <sup>th</sup> grade education
	<23	Abnormal for high school education
	<24	Abnormal for college education
Severity	24-30	No cognitive impairment
	18-23	Mild cognitive impairment
	0-17	Severe cognitive impairment

B.L is O.K.

### Sources:

- Crum RM, Anthony JC, Bassett SS, Folstein MF. Population-based norms for the mini-mental state examination by age and educational level. *JAMA*. 1993;269(18):2386-2391.
- Folstein MF, Folstein SE, McHugh PR. "Mini-mental state": a practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res*. 1975;12:189-198.
- Rovner BW, Folstein MF. Mini-mental state exam in clinical practice. *Hosp Pract*. 1987;22(1A):99, 103, 106, 110.
- Tombaugh TN, McIntyre NJ. The mini-mental state examination: a comprehensive review. *J Am Geriatr Soc*. 1992;40(9):922-935.

# Patient Stress Questionnaire\*

Name: B.L.

Date: \_\_\_\_\_ Birthdate \_\_\_\_\_

Over the **last two weeks**, how often have you been bothered by any of the following problems?

(please circle your answer & **check the boxes that apply to you**)

	Not at all	Several days	More than half the days	Nearly Every day	
1. Little interest or pleasure in doing things	✓ 0	1	2	3	
2. Feeling down, depressed, or hopeless	✓ 0	1	2	3	
3. <input checked="" type="checkbox"/> Trouble falling or staying asleep, or <input type="checkbox"/> sleeping too much	0	1	2 ✓	3	
4. Feeling tired or having little energy	0	1 ✓	2	3	
5. <input type="checkbox"/> Poor appetite or <input type="checkbox"/> overeating	0 ✓	1	2	3	
6. Feeling bad about yourself or that you are a failure or have let yourself or your family down	0 ✓	1	2	3	
7. Trouble concentrating on things, such as reading the newspaper or watching television	0 ✓	1	2	3	
8. <input type="checkbox"/> Moving or speaking so slowly that other people could have noticed, or <input type="checkbox"/> the opposite - being so fidgety or restless that you've been moving around a lot more than usual	0 ✓	1	2	3	
9. <input type="checkbox"/> Thoughts that you would be better off dead, or <input type="checkbox"/> hurting yourself in some way	✓ 0	1	2	3	Total
(10)	add columns:	1	2		(3)

1. Feeling nervous, anxious or on edge	0 ✓	1	2	3	
2. Not being able to stop or control worrying	0 ✓	1	2	3	
3. Worrying too much about different things	0	1 ✓	2	3	
4. Trouble relaxing	0	1 ✓	2	3	
5. Being so restless that it is hard to sit still	0 ✓	1	2	3	
6. Becoming easily annoyed or irritable	0 ✓	1	2	3	
7. Feeling afraid as if something awful might happen	0 ✓	1	2	3	Total
(8)	add columns:	2			(2)

\*adapted from PhQ 9, GAD7, PC-PTSD and AUDIT 1/24/11

Please also complete back side →

Provider: 9021891

Are you currently in any physical pain?	No ✓	Yes
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In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, **in the past month**, you:

1. Have had nightmares about it or thought about it when you did not want to?	No ✓	Yes
2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?	No ✓	Yes
3. Were constantly on guard, watchful, or easily startled?	No ✓	Yes
4. Felt numb or detached from others, activities, or your surroundings?	No ✓	Yes

(3)

Drinking alcohol can affect your health. This is especially important if you take certain medications. We want to help you stay healthy and lower your risk for the problems that can be caused by drinking.

These questions are about your drinking habits. We've listed the serving size of one drink below.

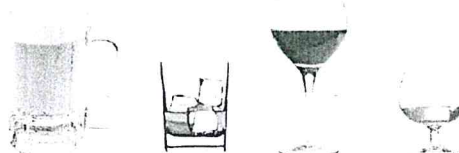
**Please circle your answer**

	0	1	2	3	4
How often do you have one drink containing alcohol?	Never	Monthly or less ✓	2-4 times a month	2-3 times a week	4+ times per week
How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4 ✓	5 or 6	7 to 9	10 or more
How often do you have four or more drinks on one occasion?	Never	Less than monthly ✓	Monthly	Weekly	Daily or almost daily
How often during the <b>last year</b> have you.....					
...found that you were not able to stop drinking once you had started?	Never ✓	Less than monthly	Monthly	Weekly	Daily or almost daily
...failed to do what was normally expected from you because of drinking?	Never ✓	Less than monthly	Monthly	Weekly	Daily or almost daily
...needed a first drink in the morning to get yourself going after heavy drinking?	Never ✓	Less than monthly	Monthly	Weekly	Daily or almost daily
...had a feeling of guilt or remorse after drinking?	Never ✓	Less than monthly	Monthly	Weekly	Daily or almost daily
...been unable to remember what happened the night before because you had been drinking?	Never ✓	Less than monthly	Monthly	Weekly	Daily or almost daily
	0		2		4
Have you or someone else been injured as a result of your drinking?	No ✓	Yes, but not in the last year			Yes, during the last year
Has a relative, friend, doctor or other health worker been concerned about your drinking or suggested you cut down?	No ✓	Yes, but not in the last year			Yes, during the last year

(8)

**Standard serving of one drink:**

- 12 ounces of beer or wine cooler
- 1.5 ounces of 80 proof liquor
- 5 ounces of wine
- 4 ounces of brandy, liqueur or aperitif



**Total:** 1

# Identifying Geriatric Patients at Risk for Suicide and Depression

Ryan C. W. Hall, MD, Richard C. W. Hall, MD, and Marcia J. Chapman



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Suicide represents a major cause of death in the United States, accounting for 31,000 deaths per year and an overall rate of 11.2/100,000 persons/year.<sup>1-3</sup> Few realize that there is a bimodal age distribution to the suicide curve.<sup>4</sup> The elderly and adolescents/young adults are the groups at greatest risk.<sup>3,5</sup> About one-fifth of all successful suicides are committed by persons over age 65,<sup>6</sup> with men over the age of 69 having the highest rate of completed suicide.<sup>7</sup> In 1988, the rate of completed suicide for individuals age 80-84 was 26.5/100,000 persons/year, compared to a rate of 12.4/100,000 persons/year for the general population.<sup>8</sup> An interesting trend, which has occurred since the early 1990s when managed care became prevalent, is an increase in number of suicides.<sup>3</sup> Recent studies show completed suicide rates of between 40 and 60/100,000 persons/year in men over the age of 80.<sup>3,4,9,10</sup>

Elderly patients, particularly men, are more likely to successfully commit suicide when an attempt is made, because they are less likely to “cry for help,” have access to potentially harmful medications, and may use more lethal means (gunshots or hangings).<sup>3,11</sup> In addition, they are less physically resilient due to comorbid medical conditions.<sup>3,5,8</sup> A recent paper notes that more than 75% of the elderly who were successful in committing suicide had been recently diagnosed with a first episode of major depression, which was judged to be only “moderately severe” by their physicians.<sup>8</sup> Approximately 75% had seen their primary care physician within one month of their completed suicide.<sup>12</sup>

Suicide risk factors in elderly populations include presence of mental and/or emotional disorders and moderate to heavy alcohol consumption.<sup>3,5,6,12-14</sup> These two factors are consistent with general population studies, which indicate that more than 90% of all people who commit suicide have a diagnosable psychiatric disorder at time of death.<sup>3,5,8</sup> Other identifiable risk factors in the elderly include quality-of-life issues, separation, divorce, recent death of a spouse, high comorbid medical disease rates, and being male and Caucasian. Comorbid

medical conditions, which have low survival rates and are associated with chronic pain (eg, cancer), are another important risk factor.<sup>3,5,8,12,13,15</sup>

### DETECTING THE SUICIDAL PATIENT

It is important for physicians to be able to detect the patient who is at risk for committing suicide. The best way to accomplish this is through the use of a thorough medical and psychiatric history (Table I). The information gained from the psychiatric history is helpful for defining a patient's "imminent risk" for suicide. Patients are at imminent risk if it is believed they are likely to commit suicide within the next 48 hours. Patients are at "short-term risk" if they are likely to commit suicide within days to weeks and at "long-term risk" if they have sufficient risk factors associated with an eventual death by suicide.<sup>5</sup> Hirschfeld and Russell<sup>5</sup> note that a patient should be considered at imminent risk (within 48 hours) for committing suicide if the patient expresses the intent to die, has a cogent plan, and has a lethal means available to him (eg, prescription medications for overdose, a gun). Secondary factors that further increase risk of an imminent suicide are expressions of despair, hopelessness, extreme pessimism about the future, high levels of anxiety, and psychotic thought processes, particularly command hallucinations di-

recting suicide. Any patient deemed at imminent risk for suicide should be hospitalized immediately for treatment.<sup>5</sup>

A Washington state study by Florio et al<sup>6</sup> looking at risk factors in a community of seniors elicited a similar list of warning signs. They found that the historical items that differentiated the suicidal from the nonsuicidal elderly were age (suicidal elders were younger), separation or divorce, and previous history of suicidal behavior. Additional risk factors included medical illness, family conflict, and loss of a relationship, particularly with a long-term spouse. An interesting unexpected finding was that patients who completed suicide were more likely to be treated by family physicians than by internists or psychiatrists. Most of the patients who committed suicide had seen their primary care physician within one month prior to their suicide.<sup>12</sup>

Older adults who commit suicide are likely to suffer from a long-term (months to years) persistent depression and/or anxiety disorder. They are less likely to commit suicide due to acute psychological stress than are younger patients.<sup>12</sup> Doctors need to inquire whether their elderly patients are under chronic stress, particularly loss of independence or fear of financial ruin, which are the two chronic stress risk factors most frequently associated with geriatric suicide.<sup>12</sup>

When a physician is concerned that a patient may be suicidal, he/she should speak with the patient's immediate

family, because 60% of patients who commit suicide have discussed having suicidal ideations with their spouse within a year of their deaths, whereas only 18% of successful geriatric suicides discussed their intentions with a trained professional beforehand.<sup>12</sup>

TABLE I

#### Important Questions to Ask in Psychiatric History

- Is life worth living? Do you get enjoyment out of life? *Yes Yes*
- Do you think of ending it, committing suicide, or just not waking up? *No*
- Have you ever attempted suicide in the past? *No*
- Have you ever sought psychiatric treatment? Inpatient or outpatient? *No*
- What psychiatric medication do you currently take? What have you taken in the past? *None*
- (Source of medications for possible overdose) Which medicine has helped you the most?
- Any family history of mental illness or suicide? *Yes - My father.*
- Are there things happening to you that are particularly stressful or cause you to worry a lot? How long have they been going on? *Yes. I have cancer. 10 years*
- Do you have an active suicide plan? How would you end your life? *No Plan. No*
- How close are you to carrying out this plan? Are you experiencing command hallucinations? Do you see or hear things others do not? Do you hear voices talking to you or telling you to do things? Do they tell you to kill or injure yourself or someone else? *No plans of committing suicide*

There is a medical myth that asking a patient about suicide will encourage the act. Physicians are often reluctant to simply ask, "Are you thinking of suicide, just not waking up, or harming yourself?" Studies, however, show that addressing the possibility of suicide with depressed or distraught patients reduces their risk of suicide.<sup>5</sup>

### ALCOHOL

There is a strong correlation between alcohol use and abuse in the elderly and suicide. In a California study of 11,888 retirement community residents, risk of suicide was increased 3.5 times for those who consumed three or more drinks a day.<sup>14</sup> The same study found those who drank less than two drinks a day had a lower risk of both suicide and accidental death.

### DEPRESSION

Of all patients with untreated major depression, 15% will eventually commit suicide.<sup>3,5,12,16,17</sup> In fact, 80% of patients suffering from a major depression experience suicidal ideation.<sup>12</sup> Many physicians miss or dismiss the telltale signs of depression in the elderly as normal complaints associated with aging. This lack of recognition is compounded by the

TABLE II

#### Mnemonic SIGECAPS for Depression in the General Population<sup>8</sup>

- S = changes in **Sleep** - *Yes*
- I = lack of **Interest** or anhedonia - *NO*
- G = feelings of excessive or inappropriate **Guilt** - *NO*
- E = decreased **Energy** - *I am old. Yes.*
- C = decreased **Concentration** (unable to follow TV show or newspaper article) - *NO*
- A = decreased or increased **Appetite** - *NO*
- P = decreased **Psychomotor** activity ("I feel like I am walking with lead clothes") - *NO*
- S = presence of **Suicidal** ideation - *NO*

fact that depression often presents differently in the elderly and can be confused with other existing medical conditions.<sup>8,18</sup> In the general population, the symptoms of depression are defined by the mnemonic SIGECAPS (Table II).<sup>8</sup> Other associated signs of depression include

psychotic symptoms, mood congruent delusions, and hallucinations.

Elderly persons suffering from depression often present with fewer mood-related symptoms and instead complain of fatigue, trouble concentrating, diminished memory, and lack of initiative.<sup>18,19</sup> This makes establishing the diagnosis and initiating treatment difficult given that the DSM-IV requires a critical number of different symptoms (traditionally five out of nine) to make the diagnosis of major depressive disorder. Gallo et al,<sup>20</sup> in a 13-year study of men over 50, found that

those who reported hopelessness, worthlessness, or thoughts of impending death or suicide, and had at least two other symptoms of depression were at increased risk for functional disability, impairment in activities of daily living, cognitive impairment, psychological distress, and death. The symptoms that were usually denied were sadness and/or loss of interest or pleasure in activities formerly enjoyed. This type

TABLE III

#### Presentation of Masked Depression in the Elderly

1. Weight loss - *NO*
2. Focus on multiple somatic complaints - *NO*
3. Unexplained somatic complaints - *NO*
4. Minimizing or denying presence of mood-related symptoms - *NO*
5. Weakness - *Sometimes*
6. Lassitude - *NO*
7. Hopelessness - *NO*
8. Helplessness - *NO*
9. Anxiety, worry, rumination - *NO Yes*
10. Memory complaints with or without objective signs of cognitive impairment - *NO*
11. Loss of feelings of pleasure (anhedonia) - *NO*
12. Slowed movement - *NO*
13. Irritability - *Yes*
14. Lack of interest in personal care - *NO*

of presentation is referred to as “nondysphoric depression” or “masked depression” (Table III).<sup>19</sup> Gallo, in another study, reported that African-American men over the age of 60 who suffered with depression had decreased reporting of mood changes or dysphoria when compared to Caucasian men. Elderly African-American men were also more likely to ruminate about death when depressed than were Caucasians.<sup>21</sup>

The elderly are more likely to experience weight loss during a depressive episode than is the general population.<sup>8</sup> This weight loss is often mistakenly attributed as a normal part of aging (ie, loss of taste receptors), other medical conditions such as cancer, or the existence of social problems such as inability to obtain food.

Other typical presenting features of depression in the elderly include the patient being focused on multiple vague somatic complaints, social withdrawal, a decline in activities of daily living, increasing irritability, and minimization or denial of any change in mood.<sup>8,13,17-19</sup>

The Epidemiologic Catchment Area (ECA) study showed a one-month prevalence of major depression in the elderly of 0.7% compared to 2.2% for all adults.<sup>8,22,23</sup> Similar results were reported by the Epidemiologic Studies of the Elderly.<sup>23</sup> There is much debate about the accuracy of these numbers and of possible biases that may have skewed these results. Explanations for the decreased prevalence of depression in the elderly include nonrecognition of early depressive symptoms (you just feel this way when you get old), underdiagnosis of depression due to the atypical symptoms displayed by the elderly, and a cohort effect of the studies.<sup>22-24</sup> Barry et al<sup>25</sup> reported rates higher than the ECA of 5.7% of men and 10.6% of women over age 60 meeting diagnostic criteria for a current depression. The ECA study did report that 2% of the elderly population suffered from dysthymia and that up to 20% of community-dwelling elderly had significant subsyndromal depressive symptoms. Others have reported a rate of depression of between 7% and 12% in residential treatment settings.<sup>8</sup> For patients who are de-

mented and in a residential treatment facility, the rate climbs to 20%.<sup>8</sup> In the general population the ratio of women to men suffering from a mood disorder is approximately 2:1, but the ratio for people in their 90s increases to 1:1.<sup>8</sup> This increased incidence of depression with advancing years in men has been attributed to their loss of physical and cognitive abilities, which diminish their self-esteem and self-image more than similar changes in aging women.<sup>26</sup>

The mortality from comorbid medical conditions is increased in the elderly suffering from depression.<sup>18</sup> Moore and Bona<sup>12</sup> found that elderly nursing home patients with major depression and two additional comorbid medical conditions had a 59% higher mortality rate than nondepressed age-matched controls with two or more similar medical conditions. Many of these depressed patients had lost their will to live, gave up on medical treatment, and became medically noncompliant.

The Geriatric Depression Scale (GDS) is a 30-question, self-reporting written scale used as a specific screening tool for depression in the elderly.<sup>27</sup> Another effective screening tool is the Beck Depression Inventory.<sup>27</sup> Both of these scales identify 90% of seniors with depression. It should be noted that their sensitivity might be diminished in patients with underlying dementia and in African Americans.<sup>23</sup> Patients who should be specifically tested for depression with these scales include elderly men with a positive personal or family history of depression or suicide, those with multiple medical problems, alcoholism, and those experiencing acute psychosocial stressors (eg, living alone or in nursing homes).<sup>23,25</sup>

One of the criticisms of the GDS is that its length makes it difficult to use for patients with depression who have trouble concentrating, and that the time available for administration may be too limited in an outpatient or emergency department setting. When these factors apply, the Zung Self-Rating Depression Scale or the modified Koenig Scale (an 11-question yes/no test [Table IV]) may be used.<sup>28</sup> The Koenig Scale was originally developed for use in medically

ill patients in Veterans Administration hospitals. Validation studies employing male and female geriatric inpatients using a modified Koenig Scale (oral presentation with modified pronouns) found the test to have a sensitivity of 100% and a specificity of 85% for detecting depression using DSM-III criteria, when cutoff scores of four positive responses were used.<sup>28</sup> Recently, Meldon et al<sup>28</sup> used the modified Koenig Scale in the emergency room and found that it detected depression in 27% of geriatric patients.

### GERIATRIC OR LATE-ONSET DEPRESSION

The usual age of first onset of major depression is in the third decade of life.<sup>8</sup> If a geriatric patient has a history of multiple depressive episodes dating back to his young adulthood, the current bout is a recurrence of a lifelong disease state. In these cases, each bout is likely to be more severe than the previous one and carry with it a higher likelihood of suicide and recurrence. Patients are also at a significantly higher risk for suicide, 224 per 100,000 person years, if they have a past history of psychiatric hospitalization.<sup>3,5,12</sup>

If the first episode of depression occurs after the age of 65, it is referred to as a late-onset or geriatric-onset depression.<sup>8</sup> Although the DSM-IV does not have a separate category for this type of depression, it is well described in the literature.<sup>8</sup> Late-onset depressions often present differently than depressive disorders that occur earlier in a patient's life. Psychotic and delusional symptoms occur in 45% of cases of late-onset depression.<sup>8</sup> Psychosis is a powerful risk factor in determining if a patient is at imminent risk for committing suicide.<sup>5</sup> Patients suffering from late-onset depression are also less likely to have a positive family history of depression and are more likely to present with masked depressions.<sup>8</sup> Neuroimaging studies of patients with late-onset depressions show

### The Modified Koenig Depression Scale<sup>28</sup>

TABLE IV

1. Do you often get bored?	<b>Yes</b>	<input type="radio"/> No
2. Do you often get restless or fidgety?	<b>Yes</b>	<input type="radio"/> No
3. Do you feel in good spirits?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
4. Do you feel you have more problems with memory than most?	<b>Yes</b>	<input type="radio"/> No
5. Can you concentrate easily when reading the papers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
6. Do you prefer to avoid social gatherings?	<b>Yes</b>	<input type="radio"/> No
7. Do you often feel downhearted and blue?	<b>Yes</b>	<input type="radio"/> No
8. Do you feel happy most of the time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
9. Do you often feel helpless?	<b>Yes</b>	<input type="radio"/> No
10. Do you feel worthless and ashamed about yourself?	<b>Yes</b>	<input type="radio"/> No
11. Do you often wish you were dead?	<b>Yes</b>	<input type="radio"/> No

*Bl said I ~~feel~~ feel good*

Positive responses are boldfaced. Geriatric Depression likely if 4 or more are positive.

more abnormal changes, particularly subcortical encephalomalacia and deep white matter changes, than do those of age-matched controls.<sup>8</sup> Other central nervous system changes more frequently seen in late-onset depression include cortical atrophy, enlargement of the lateral ventricles, and lesions of the pons and the subcortical gray nuclei.<sup>8</sup> Whenever a late-onset depression is found (Table V), it is important to rule out or identify reversible/medical causes that can be treated, such as medication effects or medical/neurologic diseases known to produce this condition.<sup>8,29-32</sup>

### TREATMENT OF DEPRESSION IN THE ELDERLY

Fortunately, both early- and late-onset depressions respond well to treatment.<sup>8</sup> Menza and Liberatore<sup>8</sup> found that 69% of elderly patients with depression responded well to initial treatment, whereas 57% of the remaining refractory patients had improved at one year.<sup>8</sup> Currently, the drugs of choice for treating depression in the elderly are the selective serotonin reuptake inhibitors (SSRIs).<sup>8,18,23</sup> These medications have a low incidence of side effects, few significant adverse cardiac effects, and are generally effective in treating depression in the elderly.<sup>8</sup>

Although tricyclic antidepressants are equally efficacious, they should not be used as a first-line treatment in the elderly due to their significant side-effect profiles. Many of the tricyclics have high affinity for histaminic,  $\alpha_1$ , and cholinergic receptors, which account for their side effects of sedation, orthostatic hypotension, and their anticholinergic side effects such as urinary retention, constipation, tachycardia, dry mouth, and memory impairment.<sup>8</sup> All tricyclic antidepressants slow heart conduction to some degree, producing at least some PR and QT prolongation. The QT prolongation is the more serious of these effects because it can lead to idioventricular arrhythmias and other fatal heart arrhythmias if the drug concentration becomes too high.<sup>8</sup> Patients with ventricular arrhythmias and/or ischemic heart disease have been shown to be at increased risk for developing these arrhythmias and sudden death, even with therapeutic blood levels of tricyclics.<sup>8</sup> Another major disadvantage of the tricyclics is their lethality on overdose. The drugs most commonly used to commit suicide, in the general population, are the neuroleptics (used in 74.3% of overdoses) and antidepressants (used in 77.4% of overdoses).<sup>33</sup>

For patients who are acutely suicidal, those with unstable medical conditions, and those with severe and/or refractory depression, electroconvulsive therapy (ECT) remains an important option. ECT should be considered for patients who are acutely suicidal and where immediate mood changes are necessary.<sup>34</sup> It should also be considered for patients having major depressions with psychotic features, for those who cannot tolerate or do not have a response to antidepressant medications, and for patients who have medical conditions that

TABLE V

Medical Workup for Late-Onset Depression<sup>8,30</sup>

- Review medication interactions
- CBC
- Serum electrolytes
- Glucose
- Renal function tests
- Liver function tests
- Calcium
- Serum B<sub>12</sub>
- Folate
- Syphilis serology (RPR)
- Thyroid function tests (including TSH)
- Urinalysis

BL said "I have leukanemia so the blood work are not within limits"

*CBC = complete blood count; TSH = thyroid stimulating hormone; RPR = rapid plasma reagin (re: syphilis test).*

preclude their use (eg, severe liver disease).<sup>5</sup> It must be remembered that it can take the SSRIs 6-8 weeks to become fully effective in younger patients and up to 12 weeks in geriatric patients.<sup>18</sup> ECT is safe for seniors but should not be used where relative contraindications occur (ie, increased intracranial pressure, intracerebral hemorrhage, pheochromocytoma, space-occupying intracerebral le-

sions, vascular aneurysms or malformations) unless there is no better alternative.<sup>35</sup>

Although any physician can write a prescription for an SSRI, patients who receive early psychiatric consultation for their depression have been shown to do better. This is especially true for patients with suicidal tendencies and those having psychotic, delusional, and stuporous depressions. Benefits from early consultation include a higher rate of recovery, quicker onset of recovery, reduced suicide rates, and a lower rate of relapse or recurrence.<sup>36</sup> Even with their high rate of overall mental illness, particularly of depression and suicide, the elderly are underutilizers of mental health services. It is estimated that only 2% of the elderly see a private psychiatrist and only 6% receive any services from community mental health programs.<sup>37</sup> The reasons for this underutilization include the stronger stigma of mental illness seen in older generations, decreased mobility with a decreased ability to physically reach appointments, and lack of knowledge of geriatric directed programs.<sup>37</sup> It is important for primary care providers to help their patients access these services. Options that can be looked into for the elderly include crisis intervention centers, case management, counseling, group therapy, case consultation, day treatment or partial hospitaliza-

tion, geriatric support groups, and peer counseling.<sup>37</sup> In general, funding should not be an issue because most of these programs receive funds from Medicare, Medicaid, private insurance, local public revenues, the Older Americans Act, and/or Social Services Block Grants.<sup>37</sup>

An interesting study done by Gallo,<sup>38</sup> looking at knowledge and attitudes about depression by internists and family practitioners, found that both groups had roughly equivalent knowledge about depression. Both groups also expressed considerable uncertainty in their knowledge of psychotherapy and in their evaluation of the effectiveness of strategies for prevention of recurrent depression. Family practitioners, however, rated themselves as being more skilled in managing depression than did internists. Family practitioners were more likely to provide SSRIs and to counsel patients with moderate to severe depression. What is noteworthy is that they were less likely to refer patients to competent mental health specialists than internists and, as was noted earlier, their patients were more likely to commit suicide.<sup>12</sup>

### SUICIDE IN THE PATIENT WITHOUT DEPRESSION

Data from the state of Oregon, where physician-assisted suicide has been legalized, provides some interesting results. The results are presented and commented on to provide a more complete picture when identifying elderly or terminally ill patients who might commit suicide. It is beyond the scope of this article to address the ethical issues involved with euthanasia. A recent *New England Journal of Medicine* article reported on a retrospective study in which nurses and social workers commented on the reasons patients choose euthanasia.<sup>39</sup> Previous research has suggested that up to 20% of patients seeking to enter the Oregon state program were depressed and not allowed to enroll.<sup>39</sup> The state does mandate that to be considered for the program the patient needs to be free from depression. This, in theory, provides a sample of the population who wishes to die without being in-

fluenced by depression. The key factors listed in the study as reasons why individuals wanted to end their lives included: to control the circumstances of their death, to maintain dignity, a desire to die at home, being ready to die, the belief that continuing to live was pointless, an inability to engage in pleasurable activities, and a poor quality of life. The article did point out that the last three reasons could be manifestations of "occult depression."<sup>39</sup>

The mean age of the patients in the Oregon program was  $63.6 \pm 11.5$  years. Of these patients, 83% had cancer, 12% had cardiopulmonary disease, and 9% had neurologic diseases (some patients reported to have more than one disease). Of these patients, 43% resided in rural areas, 34% in towns, and 23% in cities. Depression and other psychiatric disorders, lack of social support, and concern about being a financial drain were deemed unimportant factors by evaluating nurses. The nurses reported that 77% of those who listed loss of control as an important reason for wanting euthanasia seemed to be "more fearful" about this issue than were other hospice patients, but only 8% were listed as less fearful. Whereas 62% were more concerned about loss of independence, only 9% were less concerned about loss of independence than other hospice patients. Pain relief was rated as an important factor in the request for euthanasia, but it was not the most important. Fatigue and dyspnea were reported as only moderately important. It is interesting to note that patients in the euthanasia program were concerned about being a burden to their families but, as observed by nurses and social workers, the families seemed less burdened than other hospice families.

The Oregon data suggest that loss of physical function and issues of declining health can lead patients without depression to contemplate suicide. The important factors identified were illnesses that caused continuous pain, patient-perceived limited quality of life, and illnesses that interfered with a patient's autonomy and dignity. These patients' perceptions of their condition and degree of incapacitation were usual-

ly more severe than that of their family, caregivers, or other hospice patients. These patients saw themselves as a burden, were apprehensive, and feared loss of control over their lives.

## SUMMARY

The geriatric patient most likely to commit suicide is a widowed or divorced white man suffering from a masked depression with high anxiety, who has been ill for an extended time (months to years), is isolated or living in a nursing home, has comorbid medical or neurologic illness, and has a heightened fear of losing control and loss of dignity. He consumes three or more alcoholic drinks a day, has lost hope, and views life as pointless. Older women have similar risk factors. Effective treatment for these individuals does exist; the earlier the intervention, the better the outcome.

## REFERENCES

- National Center for Health Statistics. Singh GK, Kochanek KD, MacDorman MF. Advanced report of final mortality statistics, 1994. *Mon Vital Stat Rep* 1996;45(suppl 1).
- National Center for Health Statistics. Peters KD, Martin JA, Ventura SJ, et al. Births and deaths: United States, July 1995-June 1996. *Mon Vital Stat Rep* 1997;45(suppl 2).
- Hall RCW, Platt DE, Hall RCW. Suicide risk assessment: A review of risk factors for suicide in 100 patients who made severe suicide attempts: Evaluation of suicide risk in a time of managed care. *Psychosomatics* 1999;40(1):18-27.
- Snowdon J. Suicide rates and methods in different age groups: Australian data and perceptions. *Int J Geriatr Psychiatry* 1997;12:253-258.
- Hirschfeld RMA, Russell JM. Assessment and treatment of suicidal patients. *N Engl J Med* 1997;337:910-915.
- Florio ER, Hendryx MS, Jensen JE, et al. A comparison of suicidal and nonsuicidal elders referred to a community mental health center program. *Suicide Life Threat Behav* 1997;27(2):182-193.
- National Center for Health Statistics. Death rates for 72 selected causes, by 5-year age groups, race and sex: United States, 1994. Hyattsville, MD: Public Health Service, 1996.
- Menza MA, Liberatore BL. Psychiatry in the geriatric neurology practice. *Neural Clin* 1998;16(3):611-633.
- Centers for Disease Control. Suicide among older persons—United States, 1980-1992. *MMWR CDC Surveill Summ* 1996; 45:3-6.
- Gallagher-Thompson D, Osgood NJ. Suicide in later life. *Behavior Therapy* 1997; 28:23-41.
- NIH Consensus Conference. Diagnosis and treatment of depression in late life. *JAMA* 1992;268:1018-1024.
- Moore JD, Bona JR: Depression and dysthymia. *Med Clin North Am* 2001;85(3):631-644.
- Grabbe L, Demi A, Camann MA, et al. The health status of elderly persons in the last year of life: A comparison of deaths by suicide, injury, and natural causes. *Am J Pub Health* 1997;87:434-437.
- Adams WL. Alcohol and the health of aging men. *Med Clin North Am* 1999;83(5):1195-1211.
- Sutton LM, Demark-Wahnefried W, Clipp EC. Management of terminal cancer in elderly patients. *Lancet Oncol* 2003;4(3):49-57.
- Breslau N, Davis GC. Migraine, suicidal ideation, and suicide attempts. *Neurology* 1992;42:392-395.
- Alexopoulos GS. Mood disorders. In: Kaplan HI, Saddock BJ, eds. *Comprehensive Textbook of Psychiatry*, 6th ed. Baltimore, MD: Williams & Wilkins, 1995;(2):2566-2568.
- Lantz MS. Depression in the elderly: Recognition and treatment. *Clinical Geriatrics* 2002;10(10):18-24.
- Gallo JJ, Rabins PV. Depression without sadness: Alternative presentations of depression in late life. *Am Fam Physician* 1999;60(3):820-826.
- Gallo JJ, Rabins PV, Lyketsos CJ, et al. Depression without sadness: Functional outcomes of nondysphoric depression in later life. *J Am Geriatr Soc* 1997;45:570-578.
- Gallo JJ. Depressive symptoms of whites and African Americans aged 60 years and older. *J Gerontol B Psychol Sci Soc Sci* 1998;53(5):277-286.
- Heithoff K. Does the ECA underestimate the prevalence of late life depression? *J Am Geriatr Soc* 1995;43(2):2-6.
- Bakshi S, Miller DK. Assessment of the aging man. *Med Clin North Am* 1999;83(5):1131-1149.
- Shulman KI, Herrmann N. The nature and management of mania in old age. *Psychiatr Clin North Am* 1999;22(3):649-665.
- Barry KL, Fleming MF, Manwell LB, et al. Prevalence of and factors associated with current and lifetime depression in older adult primary care patients. *Fam Med* 1998;30(5):366-371.
- Huang BY, Cornoni-Huntley J, Hays JC, et al. Impact of depressive symptoms on hospitalization risk in community-dwelling older persons. *J Am Geriatr Soc* 2000;48(10):1279-1284.
- Yesavage JA, Brink TL, Rose TL, et al. Development and validation of a geriatric depression scale: A preliminary report. *J Psychiatr Res* 1982;17(1):37-49.
- Meldon SW, Emerman CL, Schubert DS, et al. Depression in geriatric ED patients: Prevalence and recognition. *Ann Emerg Med* 1997;30(2):141-145.
- McGann PE. Geriatric assessment for the rheumatologist. *Rheum Dis Clin North Am* 2000;26(3):415-432.
- Hall RCW. Depression. In: Hall RCW, ed. *Psychiatric Presentations of Medical Illness: Somatopsychic Disorders*. New York: Spectrum;1980:37-63.
- Hall RCW, Levenson AJ, LeCann AF. Evaluation and assessment of non-functional psychiatric illness in the elderly. In: Levenson AJ, Hall RCW, eds. *Neuropsychiatric Manifestations of Physical Disease in the Elderly*. New York: Raven Press;1981:133-149.
- Hall RCW, Beresford TP, Blow FC. Depression and medical illness: An overview. In: Cameron OG, ed. *Presentations of Depression - Depressive Symptoms in Medical and Other Psychiatric Disorders*. New York: John Wiley;1987:401-414.
- Ohberg A, Vuori E, Ojanperä I, et al. Alcohol and drugs in suicides. *Br J Psychiatry* 1996;169:75-80.
- Lebowitz BD, Pearson JL, Schneider LS, et al. Diagnosis and treatment of depression in late life: Consensus statement update. *JAMA* 1997;278(14):1186-1190.
- Loosen PT, Beyer JL, Sells SR, et al. Mood disorders. In: Erbert MH, Loosen PT, Nurcombe B, eds. *Current Diagnosis and Treatment in Psychiatry*. New York: Lange Medical Books/McGraw-Hill;2000:304-305.
- Goldstein MZ. Depression and anxiety in older women. *Prim Care* 2002;29(1):69-80.
- Anetzberger GJ. Community resources to promote successful aging. *Clin Geriatr Med* 2002;18(3):611-625.
- Gallo JJ. Do family physicians and internists differ in knowledge, attitudes, and self-reported approaches for depression? *Int J Psychiatry Med* 2002;32(1):1-20.
- Ganzini L, Harvath TA, Jackson A, et al. Experiences of Oregon nurses and social workers with hospice patients who requested assistance with suicide. *N Engl J Med* 2002;347(8):582-588.