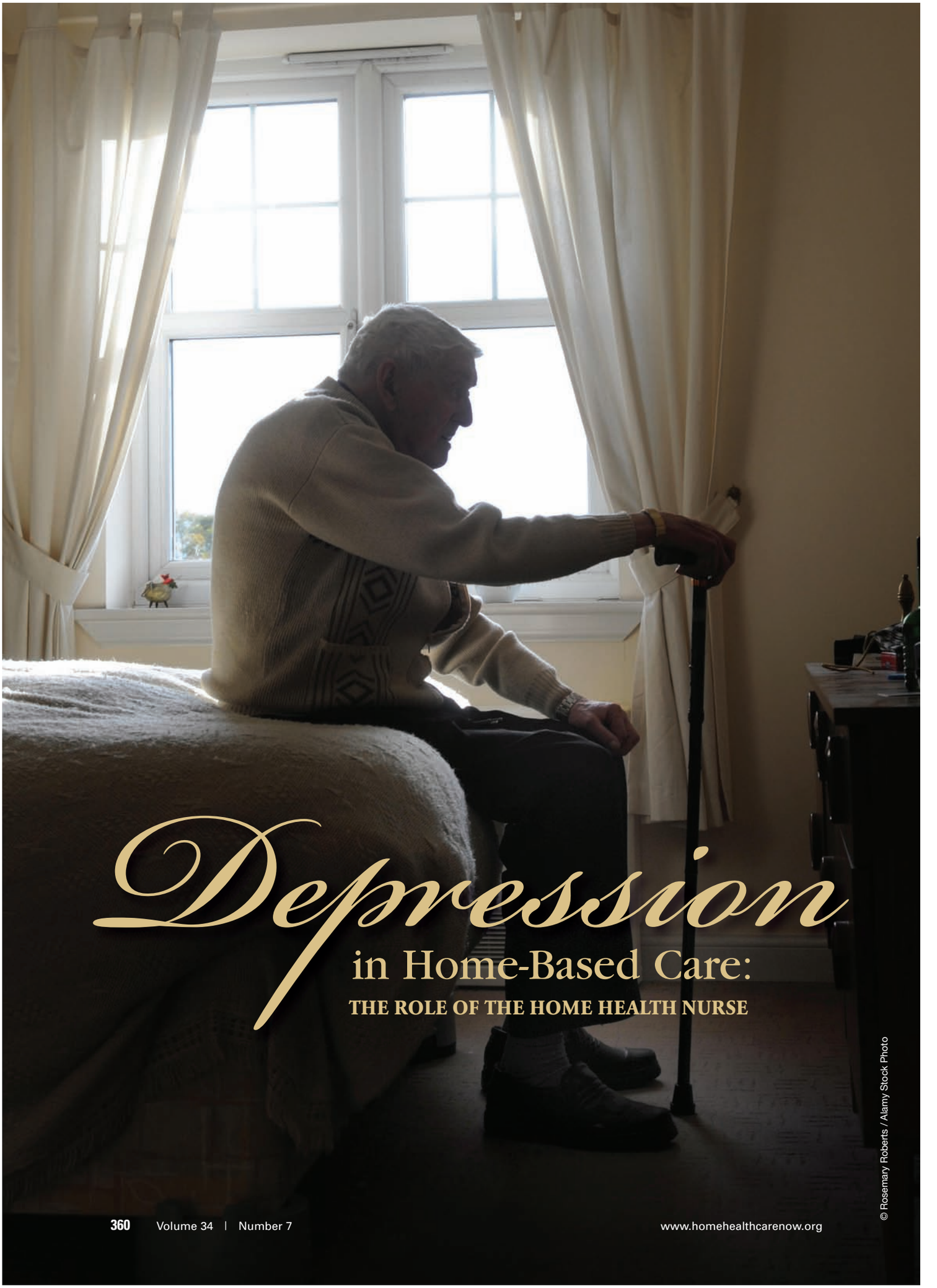

Depression in Home-Based Care:

THE ROLE OF THE HOME HEALTH NURSE

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Depression is a major health issue among older adults receiving home-based services yet is underdiagnosed and undertreated, which can result in negative health outcomes. Despite the recognized need for improved mental health services, significant gaps and barriers exist that contribute to less than optimal home-based depression management interventions. Home healthcare clinicians are well positioned to drive this effort for improving depression care with enhanced learning. Thus, the purpose of this article is to provide guidelines on improving depression care in homebound older adults based on four clinical functions central to home healthcare: screening, assessment, medication management, and patient/family education.

Depression is a major health issue among older adults receiving home-based services yet is underdiagnosed and undertreated, which can result in negative health outcomes. Despite the recognized need for improved mental health services, significant gaps and barriers exist that contribute to less than optimal home-based depression management interventions. Home healthcare clinicians are well positioned to drive this effort for improving depression care with enhanced learning. Thus, the purpose of this article is to provide guidelines on improving depression care in homebound older adults based on four clinical functions central to home healthcare: screening, assessment, medication management, and patient/family education.

Depression is a major health issue among older adults receiving home-based services and is characterized by injury-related falls (Byers et al., 2008; Stubbs et al., 2016), increased risk of hospitalization (Sheeran et al., 2010), greater medical comorbidity (Centers for Disease Control [CDC], 2015), higher healthcare utilization (Shao et al., 2011), and higher rates of suicidal ideation (Raue et al., 2007). The most recent national data report that *37.9%* of Medicare beneficiaries who received home healthcare in 2013–2014 ($N = 4{,}934{,}600$) had a diagnosis of depression (CDC, 2016). This equates to 1,870,213 homebound individuals, a staggering number. The need for homebound services and effective depression management interventions will only increase over the next several decades as the number of Americans over age 65 is projected to more than double from 40.2 million in 2010 to 88.5 million in 2050 (Vincent & Velkoff, 2010).

Despite the recognized need for improved mental health services, there are significant gaps and barriers that contribute to less than optimal home-based depression interventions and mental health outcomes. Bao et al. (2014) conducted a qualitative study based on semistructured interviews with nurses and administrators from five home healthcare agencies in five states ($N = 20$) focused on Medicare policies. The researchers reported that several Medicare policies are misaligned with the need to improve depression care and are at odds with evidence-based depression care and the chronic nature of depression. For example, Bao et al. found that Medicare's homebound and "skilled" need eligibility criteria limited the nurses' ability to follow-up with depressed patients for a sufficient time. Although depression assessment is included on the Start-of-Care (SOC) Outcome and Assessment Information Set (OASIS-C1), follow-up assessment for depression in OASIS-C1 is lacking on several fronts: there is no follow-up assessment in OASIS-C1 during the 60-day episode, nor is it included in the OASIS-C1 at resumption of care after hospitalization, recertification for another 60-day episode, transfer to an inpatient setting, or at discharge. Moreover, Bao et al. noted that vendor-developed electronic health records do not support depression care in home-based services.

Other gaps and barriers identified in the literature revolve around how home healthcare nurses view their role in relation to depression care. A study conducted by Bao et al. (2015) reported that home healthcare nurses (1) did not consider depression care to be within their scope of practice; (2) reported a sense of low self-efficacy in addressing depression and engaging patients in depression care; (3) had misconceptions about the relationship between depression and the aging process (e.g., depression was a normal part of aging); (4) placed greater importance and urgency toward general medical conditions rather than depression or other mental health disorders; and (5) held beliefs about

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Table 1. Risk Factors for Depression in Older Adults

Socioeconomic Risk Factors	Health Problems
Female gender[b,c]	Chronic medical diseases Chronic pain
Low socio economic status	Substance use or misuse
Prior depression[c] Family history of depression	Cognitive decline[a,d] Disability[c]
Recent bereavement (e.g., spouse or partner, family member, friends, pet)[c]	Sleep disturbance[c]
Living alone[a] Requiring assistance with IADL[a] Institutional placement in residential or inpatient settings[a]	

Note: IADL = instrumental activities of daily living. Table created using information from [a]Schulman et al. (2002), [b]O'Connor et al. (2009), [c]Cole & Dendukuri (2003), and [d]Engmann (2011).

stigma related to depression and mental illness. Liebel and Powers (2015) also conducted a qualitative study on home care nurses' perceptions of depression care. Their findings were consistent with Bao et al. with the additional finding that most nurses reported feeling comfortable screening for depression but were ambivalent about their role in depression care management.

As we begin to better understand the mental health needs of homebound patients (and their caregivers), intervention models that target community-based providers are emerging that could lead to better identification and management of depression. One example is the Depression CARE for PATients At Home (Depression CAREPATH) (Bruce et al., 2011). The Depression CAREPATH intervention was designed specifically for use in home healthcare to manage depression as part of ongoing care for medical and surgical patients, with the care being delivered by nurses, physical therapists, and primary providers in the home. A key feature of the intervention is that rather than assigning depression care to a specialist (e.g., social worker), all primary clinicians are expected to manage depression as part of the routine care provided. Clinical protocols were developed as part of the Depression CAREPATH to guide home care clinicians and to help home healthcare agencies develop the infrastructure needed to implement and sustain the Depression CAREPATH intervention as part of routine care. Although it may not be possible for all home healthcare agencies to implement the Depression CAREPATH (according to CDC [2016], there were 12,400 Medicare participating home care agencies in 2013–2014), there are several aspects of the clinical protocol that could be incorporated into routine care that has the potential to improve health outcomes for homebound older adults with depression, as well as increase detection of depression in those who do not have a formal diagnosis.

Although home healthcare nurses identified deficits in their depression care knowledge (Bao et al., 2015; Liebel & Powers, 2015), they are, nevertheless, well positioned to drive this effort for improving depression care with enhanced education. For example, home healthcare nurses oftentimes witness psychosocial issues (e.g., financial, family, and environmental) during their home visits that may contribute to depression or complicate self-care management of depression.

Table 2. Medications Associated With Depression

Drug Classification	Drug	
Anticonvulsant agents	Levetiracetam Phenobarbital Primadone Phenytoin	Tiagabine Topiramate Vigabatrin
Antimigraine agents	Triptans Questiapine	
Antipychotic agents	Aripiprazole Questiapine	
Antiviral agents	Efavirenz	
Benzodiazapines	Ativan Dalmane Halcyon Klonopin	Librium Valium Xanax
Beta-adrenergic blocker agents	Lopressor Propranolol Nadolol	Tenormin Coreg
Calcium-channel blocker agents	Calan Cardizem Procardia Tiazac	
Hormonal agents	Corticosteroids Tamoxifen Oral contraceptives	GnRH agonists Premarin, Prempro
Opioid agents	Demerol Morphine	Oxycondin Percodon
Smoking cessation agents	Varenicline	
Statin agents	Lescol Lipitor Mavocar	Pravachol Zocor
Immunological agents	Interferon—α Interferon—β	
Thiazide diuretics	Diuril Microzide Indapamide	Zaroxolyn Chlorthalidone

Table created using information from Katz et al. (2005).

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Table 3. Medical Conditions Associated With Depression

CNS Disease	Neoplastic and Systemic Disease
• Alzheimer's disease • Stroke • Vascular dementia • Neoplasms • Parkinson's disease • Multiple sclerosis • Amyotrophic lateral sclerosis • Huntington's disease • Myasthenia gravis • Migraines	• Uremia • Liver failure • Carcinoma of the pancreas • Temporal arthritis • Systemic lupus erythematosus • Rheumatoid arthritis • Disseminated carcinomatosis
Endocrine Disorders	**Cardiovascular Disease**
• Hypothyroidism • Hyperthyroidism • Autoimmune thyroiditis • Diabetes mellitus • Addison's disease • Cushing's disease	• Myocardial infarction • Angina pectoris • Coronary bypass surgery
Infectious Disease	**Nutritional Deficiencies**
• Tertiary syphilis • Viral encephalitis • Influenza • Lyme disease • HIV infection • Hepatitis	• B_{12} deficiency • Folic acid deficiency • Thiamine deficiency • Iron deficiency • Protein-calorie malnutrition

Note: CNS = central nervous system. Table created using information from Katz et al. (2005).

Home healthcare nurses have the clinical skills to assess for depression, to help initiate treatment, and to follow-up with the patient and their primary care provider/psychiatrist. They manage multiple chronic conditions and have a solid understanding of the interrelationship between physical and mental health. Finally, patient and family education is the hallmark of what home healthcare nurses do that can result in improved depression self-management and independence. Because home healthcare nurses provide greater than 85% of all skilled home-based services (Brown et al., 2007), they are the most logical healthcare profession to provide depression care.

Based on these premises, the purpose of this article is to provide guidelines on improving depression care in homebound older adults based on four clinical functions central to home healthcare nursing: screening, assessment, medication management, and patient/family education.

Assessment of Depression in Homebound Patients

Depression in older adults is complex and can be difficult to identify. Assessing for depression can be complicated because of medical conditions or medications that can cause symptoms of depression (such as weight loss, fatigue, sleep disturbances, and cognitive changes) or medical conditions that have a high level of comorbidity with depression (such as cancer, cardiovascular disease, diabetes, neurological disorders, and arthritis) (O'Connor et al., 2009). However, home healthcare nurses have many tools that can facilitate their assessment of depression in homebound patients. First, home healthcare nurses can assess for risk factors of depression in their older patients (Table 1), medications that are known to cause iatrogenic depression (Table 2) as well as medical conditions that have a high level of comorbidity with depression (Table 3). In addition, the Diagnostic Statistical Manual-5 (2013) has evidence-based criteria and symptoms for the assessment of major depressive disorders (Table 4). Although these diagnostic criteria are critical, depression and sadness may not be the predominant symptom of depression in older adults. Rather, physical complaints, such as pain and headaches are often more common and the primary symptoms of depression in this age-group (Table 5).

Screening for Depression in Homebound Patients

Home healthcare nurses are already screening for depression at the SOC, using the OASIS-C1.

Table 4. DSM-5® Criteria for Major Depressive Disorder

Five or more of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
Depressed mood most of the day, nearly every day, indicated by feelings of sadness, emptiness, hopelessness, and/or tearfulness;
Diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day;
Weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day;
Insomnia or hypersomnia nearly every day;
Psychomotor agitation or retardation nearly every day;
Fatigue or loss of energy nearly every day;
Feelings of worthlessness or excessive or inappropriate guilt;
Diminished ability to think or concentrate, or indecisiveness nearly every day;
Recurrent thoughts of death, recurrent suicidal ideations without a specific plan, or a suicide attempt or specific plan for committing suicide.

Table created using information from the American Psychiatric Association (2013).

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Table 5. Common Depressive Symptoms in Older Adults

Unexplained or aggravated aches and pains
Feelings of hopelessness and helplessness
Anxiety or worry
Memory problems
Lack of motivation and energy; apathy
Slowed movement and speech, fatigue
Irritability or agitation
Loss of interest in socializing or hobbies
Neglecting personal care (e.g., skipping meals, forgetting medications, neglecting personal hygiene)
Increased use of health care services
Interpersonal difficulties
Alcohol and/or benzodiazepine abuse
Noncompliance with medical treatment

Table created using information from Katz et al. (2005).

The two-item Patient Health Questionnaire (PHQ-2) is used to screen for depression, and if the patient screens positive, symptoms are then assessed using the nine-item Patient Health Questionnaire (PHQ-9) to determine depression severity (Tables 6 and 7). The PHQ-9 can be used for ongoing assessment of depression and response to treatment during the patient eligibility period.

Medication Management: Antidepressants

The most common treatment for depression in homebound older adults is antidepressant medication. The most frequently prescribed antidepressants are selective serotonin reuptake inhibitors or serotonin-norepinephrine reuptake inhibitors. Other classifications that are also effective include norepinephrine-dopamine reuptake inhibitors, mixed serotonin agonists/antagonists, and alpha 2-adrenergic receptor antagonist. Although tricyclic antidepressants have been extensively studied in the treatment of geriatric depression, older adults are more likely to experience side effects because of age-related pharmacokinetic alterations in drug absorption, binding, distribution, metabolism, and excretion (Alexopoulos et al., 2005) (Table 8).

It is estimated that approximately one in three homebound older adults will be on an antidepressant at the start of home care (Shao et al., 2011), yet a significant number will still be experiencing clinically significant depressive symptoms (Bruce et al., 2007). There are several reasons the homebound older adult may not be responding to the antidepressant medication(s), with medication nonadherence being the most significant contributing factor. Homebound older adults are especially vulnerable to nonadherence because they have higher morbidity rates combined with cognitive and social problems (Table 9). One of the most critical aspects of antidepressant medication management is a collaborative relationship with the prescribing provider who is responsive to information the home healthcare nurses share regarding the patients depression management.

Education

Patient education is particularly important for depression and depression treatment, as both are subject to myths, preconceptions, misinformation, and stigma (Bruce et al., 2011). The more patients and families know about what depression is, what causes it, and how to treat it, the more likely they will follow the prescribed medication and treatment plan, monitor symptoms, and communicate their progress to the home healthcare nurse (Bruce et al., 2011). The home healthcare nurse can play a critical role in dispelling myths and misconceptions about depression (Table 10), helping patients and families understand that depression is a medical disease that is treatable and that treatment works best when patients are adherent (Bruce et al., 2011). Providing patient education material

Table 6. Patient Health Questionnaire-2 (PHQ-2)

Over the past two weeks, how often have you been bothered by any of the following problems?	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
Add columns				
Total				

Table created using information from Kroenke et al. (2003).
Scoring: A PHQ-2 score ranges from 0 to 6. A cutoff score of 3 is the optimal cut point for screening purposes.

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Table 7. Patient Health Questionnaire-9 (PHQ-9)

Over the past two weeks, how often have you been bothered by any of the following problems?	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. Trouble falling or staying asleep or sleeping too much	0	1	2	3
4. Feeling tired or having little energy.	0	1	2	3
5. Poor appetite or 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. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual.	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself.	0	1	2	3
Add columns				
Total				
10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with people?	Not difficult at all _____ Somewhat difficult _____ Very difficult _____ Extremely difficult _____			

Interpretation of Total Score

Total Score	Depression Severity
1–4	Minimal depression
5–9	Mild depression
10–14	Moderate depression
15–19	Moderately severe depression
20–27	Severe depression

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc.
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on depression that identifies the symptoms of depression and underlying biology, risk factors, and treatment options will better prepare patients and families for depression self-management (Table 11).

Conclusion

Many homebound older adults experience depressive symptoms that are clinically significant and can adversely impact health outcomes. Evidence suggests that depression in homebound older adults is underdiagnosed and undertreated. Home healthcare nurses are well positioned to not only assess for depression (which they do at admission to home care), but to also evaluate for risk factors, contributing medical comorbidities and medications that can either lead to depression or interfere with skilled care and home treatment. However, training and educating home healthcare nurses to screen for and implement care management interventions for depression is insufficient, and places an even greater burden of responsibility on the nurse. Changes in Medicare reimbursement and financial incentives for home healthcare agencies must be implemented to fully realize the benefits of on-going depression assessment for homebound older adults (Schirmer, 2015). ⌂

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Table 8. Drug Names and Doses for Older Adults

SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRI)			
Generic Name	**Brand Name**	**Usual Daily Dose Range (mg)**	**Common Side Effects**
Citalopram	Celexa	10–20	Nausea, constipation, diarrhea, dry mouth, sleepiness, increased sweating, sexual dysfunction. Arrhythmias >20mg/day
Escitalopram	Lexapro	5–20	
Fluoxetine	Prozac	5–40	
Paroxetine	Paxil Paxil CR	5–20	
Desvenlafaxine	Prestiq	50–100	
Sertraline	Zoloft	12.5–150	
SEROTONIN-NOREPHINEPHRINE REUPTAKE INHIBITORS (SNRI)			
Generic Name	**Brand Name**	**Usual Daily Dose Range (mg)**	**Common Side Effects**
Duloxetine	Cymbalta	30–120	Potential for hypertension, sexual dysfunction, weight gain, serotonin syndrome
Venlataxine	Effexor Effexor XR	12.5–225	
Levomilnacipran	Fetzima	20–80	
Fluvoxamine	Luvox	50–150	
NOREPHINPHINE-DOPAMINE REUPTAKE INHIBITORS (NDRI)			
Generic Name	**Brand Name**	**Usual Daily Dose Range (mg)**	**Common Side Effects**
Bupropion	Wellbutrin Wellbutrin SR Wellbutrin XL	75–225	Headache, dry mouth, insomnia, nausea, constipation, diarrhea, anxiety/restlessness, tremor
ALPHA 2-ADRENERGIC RECEPTOR ANTOGONIST			
Generic Name	**Brand Name**	**Usual Daily Dose Range (mg)**	**Common Side Effects**
Mirtazapine	Remeron Remeron SolTab	7.4–45	Sedation, sleepiness, weight gain, increased appetite, dizziness
TRICYCLIC ANTIDEPRESSANTS			
Generic Name	**Brand Name**	**Usual Daily Dose Range (mg)**	**Common Side Effects**
Amitriptyline	Elavil	10–75	Sedation, hypotension, anticholingeric effects, altered cardiac rate and rhythm
Clomipramine	Anafranil	10–250	
Doxepin	Sinequan	10–75	
Imipramine	Tofranil	10–75	
Trimipramine	Surmontil	10–75	
Amoxapine	Ascendin	10–300	
Desipramine	Norpramine	10–75	
Nortriptyline	Aventyl Pamelor	10–100	
Protriptyline	Vivactil	5–20	
NEWER ANTIDEPRESSANTS			
Generic Name	**Brand Name**	**Usual Daily Dose Range (mg)**	**Common Side Effects**
Vortioxetine	Brintellix	5–20	
Vilazodone	Viibryd	10–40	Diarrhea, nausea, vomiting, headache

Table created using information from Elmaadawi et al. (2015).
Source: Salzman (2005)

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Table 9. Reasons for Lack of Response and Strategies to Improve Response

Possible Reasons for Lack of Response	Strategies to Improve Response
Prescribed a subtherapeutic dose	• Know the daily usual dose of the antidepressant the patient is taking. • Consult with prescriber of antidepressant, sharing results of the PHQ-9. • Monitor side effects and effectiveness of adjusted dose or medication switch. • Educate patient and family on the more common side effects of the antidepressant, assuring them that the side effects are transient and are likely to resolve within a 10–14 days.
Missed antidepressant dose	• Assess reasons for missed doses. • Assist patient and family in creating a reminder strategy so that doses are not missed (e.g., calendar, phone alarm, pill box). • Educate patient and family on mechanism of action and need for therapeutic blood levels.
Nonadherence	• Explore reasons for nonadherence: denial of diagnosis or that they didn't need the medication; belief that antidepressant(s) are not necessary or effective; fear of real or imagined side effects[a]; polypharamacy and complexity of medication regime; and caregiver burden[b] • Develop intervention strategies that directly address the reason for nonadherence in collaboration with the patient and family when available.

Table created using information from [a]McCormick et al. (2015) and [b]Cardenas-Valladolid et al. (2010).

Table 10. Common Myths, Misconceptions, and Misinformation About Depression

Depression is a "normal" part of the aging process
Depression is a character flaw; "just pull yourself up by your bootstraps"
Depression is "all in your head"
Depression doesn't affect *me*
Depression is not a real medical problem
Depression only happens when something bad happens in your life, such as a breakup, divorce, or failing an exam
Depression will go away on its own
Depression and sadness are the same
Antidepressants will change your personality or antidepressants are addictive
Talking about depression only makes it worse
Real men don't get depressed

Table 11. Resources for Patient Education on Depression

A Guide to Mental Wellness in Older Age: Recognizing and Overcoming Depression, Geriatric Mental Health Foundation: http://geriatricmentalhealth.org/gmhf/consumer/facts_latelife.html
A Depression Education Toolkit (2010), Weill Cornell Homecare Research Partnership. http://champ-program.org/static/Patient%20Education%20booklet%20121010.pdf
Older Adults and Depression, National Institute of Mental Health. http://champ-program.org/static/Patient%20Education%20booklet%20121010.pdf
Depression Toolkit, University of Michigan Depression Center. http://www.depressiontoolkit.org/

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