

Care Advisors  
Care Managers  
Care Providers



*White Paper*  
**A Professional Guide to  
Managing Complex Chronic Care  
in the Community**



Presented by the  
Professional Advisory Board of SeniorBridge  
and a panel of thought leaders  
in the fields of aging and healthcare

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*CHAP Accreditation certifies that SeniorBridge  
meets the highest recognized standards in healthcare.*

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# Acknowledgments

Founded in 2000, SeniorBridge is a health management company committed to helping people with complex chronic healthcare issues remain safely at home. It offers an integrated system of care that addresses the entire well-being of clients and their families through a comprehensive program of care advice, coordination and clinical service, led by licensed nurse and social worker care managers.

A Professional Advisory Board comprised of renowned experts in the field of aging guides SeniorBridge in realizing its vision to enable the paradigm shift from institutional care to care at home.

On April 25, 2008, SeniorBridge assembled its Professional Advisory Board and a group of leading experts in the field of aging and chronic healthcare. Their charge was to develop a set of best practices for improving the care and management of community-dwelling patients with clinically complex chronic health and psychosocial situations. The group focused on identifying and prioritizing patient needs in outpatient and physician office settings. Their insights and recommendations are presented in this resource guide, which is intended as a practical tool to identify other essential professional and family support needed to improve care.

SeniorBridge wishes to express sincere gratitude to the participants and hopes that this resource guide will help physicians and other healthcare professionals provide and/or coordinate the best possible care for their frail elderly patients.



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# Foreword

In June 2008, the National Center for Health Statistics reported that life expectancy in the U.S. now exceeds 78 years, largely due to decreasing mortality rates for major causes of death, including diabetes, cancer, heart disease, and accidents. However, a longer life does not always mean a life free of major medical problems. In fact, our progress in the management of debilitating diseases has increased the population with multiple chronic illnesses who, as a result, experience functional impairments — a population requiring “complex chronic care.”

Are physicians, particularly primary care physicians (PCPs), adequately prepared to address the complex care needs of our aging population? What do they need to know? Those were the questions on the table in April 2008 when SeniorBridge, a national provider of complex chronic eldercare services, brought together its own Professional Advisory Board with a select group of nationally recognized chronic care and geriatric experts to consider the challenges facing physicians today.

In our fragmented, acute care-oriented system of healthcare delivery, those with complex chronic care needs and the frail elderly can suffer in several ways. People with 5 or more chronic conditions see an average of 14 different physicians and use an average of 50 prescriptions per year.<sup>1</sup> While these specialists may provide excellent care individually, when a patient is seen by multiple specialists, the chance of a medical error increases because there is often no integrated plan of care. The patient leaves the primary care doctor’s office with one plan and then receives a different plan from a specialist he or she is seeing for a different health problem. Communication among the physicians is rare.

Complex chronic care patients are also at significant risk of injury from medication errors. According to the U.S. Food and Drug Administration, more than a million patients are injured from medication errors each year, and half of those who die as a result are older adults.<sup>2</sup> Indeed, 14% of elderly patients admitted to the hospital experienced one or more discrepancies between their pre-hospital medication regimen, post-hospital medication regimen, and what the patient reported actually taking.<sup>3</sup>

Even the most diligent PCP may not be aware of all the prescription, over-the-counter, and alternative medications a patient is taking. A typical older adult fills about 10 prescriptions each year, but, as noted earlier, that average can increase to more

than 50 prescriptions each year for those with 5 chronic illnesses.<sup>1</sup> Because many medication errors are attributable to patient misunderstanding or failure to comply with the regimen, relying on the patient to disclose all new medications does not work. Unless the PCP is alerted at the time a new prescription is filled and not at the patient’s next visit, there is a significant risk of dangerous medication errors.<sup>4</sup>

Clearly, a different approach is needed, and not only for the sake of patient health.

The cost of fragmented, inefficient chronic care is high. Medicare beneficiaries with 5 or more chronic conditions account for two-thirds of Medicare spending, which was estimated to be \$477 billion in 2009.<sup>5</sup> With the baby boomers entering retirement age, we are at a crossroads in our healthcare delivery system. Chronic care in America will soon become unsustainably expensive unless we change our methods of delivering care.

The goal of this Professional Guide is to help healthcare professionals in primary care outpatient settings meet the needs of patients requiring complex chronic care — a challenge for even the most experienced clinicians. We hope these guidelines will serve as a refresher, contribute a few new ideas, and provide a convenient compendium of some frequently used assessment instruments. Additionally, we hope this guide will lead to greater awareness of the issues and better patient outcomes and help make working with the frail elderly a more rewarding experience.

<sup>1</sup> Anderson G. *Chronic Conditions: Making the Case for Ongoing Care*. Partnership for Solutions: The Robert Wood Johnson Foundation and Johns Hopkins University; November 2007.

<sup>2</sup> Kohn LT, Corrigan JM, Donaldson MS, eds. *To Err is Human: Building a Safer Health System*. Washington, DC: Committee on Quality of Health Care in America, Institute of Medicine, National Academy Press; 2000.

<sup>3</sup> Coleman EA, Smith JD, Raha D, Min S. Posthospital medication discrepancies: prevalence and contributing factors. *Arch Intern Med*. 2005;165(16):1842-1847.

<sup>4</sup> Berenson RA, Horvath J. Confronting the barriers to chronic care management in medicine. *Health Aff (Millwd)*. 2003 Jan-Jun;Suppl Web Exclusives:W3-37-53.

<sup>5</sup> Potetz L, Cubanski J. *Medicare in America: A Primer*. Menlo Park, CA: The Henry J. Kaiser Family Foundation; July 2009.



# I Who Needs Chronic Care Management?

Generally, complex chronic care patients have multiple chronic illnesses coupled with cognitive impairment, depression, or physical limitations. The first step in improving care for seniors is to identify those patients in need of complex chronic care. It is the interaction of these disabilities that makes complex chronic care a challenge. It is not only that those individual illnesses (and the subsequent involvement of multiple specialists) can result in conflicting care plans. Equally problematic are the psychosocial issues and functional impairments that interfere with the patient's self-management of his or her medical problems.

The following 4 cases from SeniorBridge's files illustrate typical presenting scenarios in which a chronic care management organization might be recommended:

- ▶ Mrs. T., age 70, is a recently retired office manager who had handled all of her own affairs. Her niece is concerned because the client has stopped paying bills and is evidencing poor hygiene. Mrs. T. seems depressed, and is resistant to help.
- ▶ Mr. M., age 85, has a history of diabetes, and was referred from the hospital following a stroke. Although the stroke was mild, his gait is impaired and his balance is poor. The hospital social worker is concerned because Mr. M. refused a referral for sub-acute rehabilitation because his wife, who suffers from Parkinson's, lives at home. Prior to this condition, he was her sole caregiver, managing her care but often neglecting his own. He is very controlling, and his children, who live in another state, are concerned he will burn himself out.
- ▶ Mrs. A., age 89, had been living alone without services for quite some time while suffering from dementia. She fell at the supermarket and was admitted to the hospital with severe dehydration and malnutrition. Her only relative is a sister who lives out of state. The nurse discharge planner called SeniorBridge because the patient clearly needed oversight and support in the community, but had refused a referral for homecare.

- ▶ Mrs. E., age 59 with a long-standing psychiatric history, is suffering from multiple chronic illnesses because she has not managed her health over the years. She now needs someone in her home daily for a few hours to make sure she takes her medications, eats properly, and goes to her doctors. Caregivers from other agencies had been unable and unwilling to care for her. Homecare workers needed daily professional oversight and supervision to manage Mrs. E.'s behavioral problems as well as her healthcare needs.

In cases such as these, medical intervention alone is unlikely to restore the patient to better health. It isn't only their bodies that are failing — their ability to manage their own lives has been compromised. Only by addressing the underlying factors exacerbating the medical problems can we hope to effectively manage the patient's health. The primary care professional is in the best position to observe and track changes in the patient's overall medical condition and, as a known and trusted advisor, to help family members understand the need for a new, collaborative approach to their loved one's care.

## Summary

- ▶ To improve care for seniors, primary care physicians (PCPs) must learn to identify patients in need of complex chronic care.
- ▶ Indicators are multiple chronic medical problems (especially if they involve multiple specialists) combined with an inability to manage daily activities and, often, some form of cognitive impairment.
- ▶ The patient's health depends on addressing both the physical and psychosocial problems.
- ▶ Patients' families count on PCPs to guide their care decisions.



## II The Value of Collaboration

Studies have shown that an interdisciplinary team care approach can improve clinical and/or financial outcomes in outpatient settings, in the home, and during transitions between sites of care.<sup>6</sup> This is especially true when that model is combined with enhanced decision support, improved clinical information systems, support for patient and family self-management, and better access to community resources.<sup>6,7</sup> But while this level of collaboration may be the gold standard, it is also uncommon.

Despite the obvious interdependence of individual health professions, the education and training of their practitioners has failed to adequately emphasize the increased importance of collaboration and a shared scope of practice. This, in turn, has made interdisciplinary teamwork very difficult. It is unusual to find an interdisciplinary approach coordinated between different sites of care, such as nursing homes, rehabilitation centers, and the patient's home.

The very nature of complex chronic care demands the involvement of multiple practitioners, each with his or her own area of specialization. Older patients with serious or multiple chronic illnesses are at greater risk of experiencing new problems following hospital discharge, especially if healthcare providers work independently without coordinated care plans.

Also, patients with long-term chronic illnesses require more attention and time to understand their healthcare challenges. This is time that busy doctors may not have to give, especially in hospital settings, but also in physician offices. These patients are at risk for repeated hospital admissions, which might be prevented with a more collaborative approach.

Geriatricians have been trained to manage the complex care needs of older adults, but there simply aren't enough to fill the growing need: in the U.S., there are an average 5.5 geriatricians per 10,000 persons aged 75 years or older.<sup>8</sup> However, the fill rate for the first year of geriatric medicine fellowship training programs is only about 70%.<sup>9</sup>

Even if there were enough geriatricians, however, most care is given in practices with one to four doctors, and most of these small practices simply don't have the financial resources or even the space to support the extra clinicians needed to provide a multidisciplinary team approach to eldercare. These offices often have limited access to the kind of advanced information technology that has been shown to improve coordination of care.<sup>10</sup> And, finally, there is a fiscal reality: most doctors are not reimbursed for the increased time needed to coordinate the complex care needs of the elderly.

Organizations that specialize in complex chronic care for seniors have taken a leading role in improving the efficacy of care by introducing the care manager as an integral part of the interdisciplinary care team. Care managers are the glue that binds the disparate elements of modern healthcare together to better manage the needs of the chronic care patient. They act as both catalyst and coordinator, ensuring that a comprehensive care plan is in place, and that the patient is connected to available community resources and other sources of support. The patient's primary physician may not be aware of all of the barriers that prevent patients from managing their illnesses, such as the patient's environment, lack of family support, depression, and other psychosocial factors. But as the coordinator, a care manager has a comprehensive view of the complete treatment scenario, and is in a better position to see that all of the patient's caregivers — and the patient and patient's family — work together to ensure the best possible outcomes.



## Summary

- Many older adults have complex care needs.
- Lack of coordination among multiple healthcare professionals, especially from multiple locations of care, puts older patients with multiple chronic illnesses at greater risk.
- Interdisciplinary team care can improve clinical and/or financial outcomes.
- Independent care managers are essential resources for primary care physicians. Care managers can improve outcomes for patients with complex chronic care needs by coordinating care and reinforcing care recommendations.

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<sup>6</sup> Coleman EA, Min S, Chomiak A, Kramer AM. Posthospital care transitions: patterns, complications, and risk identification. *Health Serv Res.* 2004;39(5):1449-1465.

<sup>7</sup> Counsell SR, Callahan CM, Clark DO, et al. Geriatric care management for low-income seniors: a randomized controlled trial. *JAMA.* 2007;298(22):2623-2633.

<sup>8</sup> Warshaw GA, Bragg EJ. The training of geriatricians in the United States: three decades of progress. *J Am Geriatr Soc.* 2003;51(7 Suppl):S338-S345.

<sup>9</sup> Lief SJ, Warshaw GA, Bragg EJ, Shaull RW, Lindsell CJ, Goldenhar LM. Geriatric Medicine Fellowship Programs: a National Study from the Association of Directors of Geriatric Academic Programs' Longitudinal Study of Training and Practice in Geriatric Medicine. *Am J Geriatr Psychiatry.* 2003;11(3):291-299.

<sup>10</sup> Casalino L, Gillies RR, Shortell SM, et al. External incentives, information technology, and organized processes to improve healthcare quality for patients with chronic diseases. *JAMA.* 2003;289(4):434-441.



## III Relationship-Building and the Chronic Care Patient

Treating patients with chronic care needs is no longer an anomaly. As our population ages and medical breakthroughs allow us to sustain life despite a combination of serious medical conditions, physicians in practice will need to become used to working with complex chronic care patients. This requires a new way of thinking about treatment.

Physicians must track the patient's inevitable changes in status and functioning and help the patient and family make informed decisions about care. A comprehensive geriatric assessment is an important first step. It includes a battery of tools designed to establish a benchmark level of present functionality. The financial pressures of a modern healthcare practice often make it difficult for the physician to spend as much time with chronic care patients as needed. Parts of the assessment, however, can be conducted by other non-physician healthcare providers.

**TIP:** *To ensure you are appropriately reimbursed, be certain to identify different problems requiring multiple visits.*

**TIP:** *Medicare may not cover all needed services; you may have to outsource to a fee-for-service provider.*

While a comprehensive geriatric assessment is important, it does not need to be accomplished all at once. Indeed, chronic care demands a consistent, ongoing approach that begins with the first phone call. When a new patient or family member makes an appointment, your front desk should be trained to ask a number of questions upfront, including the patient's age, presenting and concurrent problems, and whether they plan to come to the appointment alone or expect to bring a friend or family member. If a family member is making the appointment, he or she should be encouraged to be a part not only of the initial visit, but of the patient's ongoing care.

**TIP:** *Be certain to obtain the patient's permission to speak with family members about his or her health.*

A questionnaire delivered to the patient via mail, fax, or e-mail in advance of the first visit can save the practice time and money and help ensure a more accurate intake process. Request that all previous records from recent hospitalizations and other physicians be sent to you.

**TIP:** *Be sure your front desk calls to remind the patient of both the appointment and the need to bring the completed questionnaire.*

Once in the office, the chronic care patient must be engaged by both the physician and his or her staff so as to build a relationship of trust and open communication that goes beyond the simple reporting of symptoms. As the patient tells his or her story, listen not only for the information presented, but for whether the patient is a reliable informant. If patients cannot provide a coherent narrative, obtain their permission to contact other family members or friends who can help paint a more complete picture.

**TIP:** *Another good strategy for engagement is to ask the patient to describe a typical day. Not only does this provide a real-world assessment of the patient's health and well-being, it allows the physician to get a better sense of the patient's life beyond his or her illnesses. In addition to helping further assess the patient's cognitive and functional status, this discussion can identify factors that could affect health and care management.*

It is important to try to understand the beliefs and behaviors of older patients regarding their medical situation. Getting into the assumptive world of the patient is time well spent, because their perspectives, culture, and actions can have a serious impact on treatment. What over-the-counter medications are they taking? Have they engaged in traditional folk remedies or culturally based dietary "prescriptions?"



**TIP:** *The doctor's willingness to listen to the patient's ideas about illness and perhaps incorporate them into the treatment plan can quickly build a rapport that is conducive to better health management.*

One of the most common problems in working with older patients is denial. When you begin to assess their ability to function, you expose their vulnerabilities. They pull away and resist the assessment process because it confirms their loss of functioning and independence. Consistent procedures to engage the patient and family members help to normalize the experience and establish trust. When patients believe you and your staff are simply following a standard, prescribed set of assessment procedures, they are less likely to resist. And when they trust your intentions and believe you regard them as a person and not a set of symptoms, they are more likely to provide accurate and useful information.

**TIP:** *Emphasize the patient's strengths rather than weaknesses. Focus on what he or she is still able to do well and what things are important. Set achievable goals.*

## Summary

- Treating complex chronic care patients requires a new approach for the physician and active information-gathering procedures for the entire staff.
- A comprehensive geriatric assessment provides an important benchmark of the patient's functionality on many levels.
- The assessment can be carried out over multiple visits. Some parts, such as the environmental and family assessments, can be outsourced to other healthcare providers.
- Engage the patient's trust to build an open relationship based on more than just symptoms.
- Involve family members as much as possible.
- Patients often resist the assessment process because they are in denial about the deterioration of their abilities. Focus on patients' strengths so that they will feel comfortable sharing their weaknesses.



## IV Assessing the Chronic Care Patient

To develop an appropriate plan of care, the physician needs reliable and valid information. When performed at regular intervals, standardized assessments provide critical information that can help identify emerging physical and psychosocial issues that adversely affect the patient's well-being. But what, precisely, should be measured?

There are a host of assessment tools that can easily be used by PCPs in private practices. These assessments can be roughly grouped into 8 categories:

- ▶ Functional
- ▶ Physical
- ▶ Mental/Cognitive
- ▶ Abuse/Neglect
- ▶ Social
- ▶ Financial
- ▶ Environmental
- ▶ Spiritual

The scope of each category, as well as some recommended assessment tools, are described below. Additional tools can be found in the Appendices.

### Functional Assessment

The ability to perform certain basic tasks can significantly affect a patient's quality of life. Accordingly, the emphasis in geriatric and complex care management is to preserve functioning and extend active life expectancy by mitigating the disease process and its impact on the patient's ability to cope with the demands of life.

Functional assessments are designed to assess the patient's ability to perform Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). These can be defined as follows:

**Activities of Daily Living** — Basic tasks related to personal care: bathing, dressing, feeding, toileting, continence, and transferring.

**Instrumental Activities of Daily Living** — Tasks related to independent living, including shopping, meal preparation, housework, laundry, using the telephone, money management, and managing medications.

The Katz Index of Independence in Activities of Daily Living is a basic functional assessment tool. Published in 1963, the Katz ADL Index assesses the patient's ability to manage his or her own personal care, and identifies areas where the patient needs assistance. A patient who is dependent in a single activity, such as bathing, may only require isolated assistance at specific times. Those who need help in multiple areas might require a broader range of services or even comprehensive assistance.

The original Katz Index (see Appendix A) allows the patient to be judged as dependent or independent in each of the 6 ADL functions. A total score of 6 indicates full function, 4 indicates moderate impairment, and 2 or less indicates severe functional impairment. Some have found a modified version using a 3-level scale consisting of the ratings "independent," "semi-independent" (needs some assistance), and "dependent" to be a better identifier of the extent of the patient's functional ability.<sup>11</sup>

The Physical Performance Test provides an alternative method of measuring ADL independence. It assesses performance on a set of basic physical tasks that simulate the Katz ADL Index.<sup>12</sup> These include:

- ▶ Writing a sentence
- ▶ Simulated eating
- ▶ Lifting a book and putting it on a shelf
- ▶ Putting on and removing a jacket
- ▶ Picking up a penny from the floor
- ▶ Turning 360 degrees
- ▶ Walking 50 feet and climbing stairs

A score is assigned to describe the amount of assistance and/or prompting required to complete each task, ranging from no assistance and no verbal prompting (score=4) to verbal prompting without any physical assistance (score=2), maximal physical assistance (score=1), or unable (score=0). A score of 28 is the highest score possible and indicates optimal performance.

The Lawton Instrumental Activities of Daily Living Scale, found in Appendix B, assesses the patient's ability to perform daily activities.<sup>13</sup> The tool is useful in identifying less apparent needs that can place the patient at risk for future functional decline.



## Physical Assessment

The history and physical examination of older patients should focus on identifying physical deficits that may cause additional functional problems, such as hearing and vision impairment, restricted mobility, and slowed response time.

Screening for hearing loss can be done very simply in an office setting using the Whisper Test.<sup>14</sup> In this test, the examiner stands out of view, 2 feet behind or to the side of the patient. At the end of an exhalation, the physician whispers a series of 3 single-digit numbers into one ear while the patient covers the other ear. If the patient is unable to repeat those 3 numbers, check for wax. If wax is present, clean it out and retest. If there is no excess wax, further evaluation of hearing should be performed by an audiologist.

In addition to the traditional wall-mounted Snellen eye chart, many professionals find that the Rosenbaum Pocket Vision Screener (see Appendix C) gives a distance-equivalent visual acuity, even though the card is held only 14 inches from the patient.<sup>15</sup>

One of the most serious concerns for geriatric patients is falling. The likelihood of a fall increases with advancing age, and it can have multiple contributing causes. A simple diagnostic evaluation can identify persons at risk for a fall and help pinpoint the potential precipitating factors. This easy assessment begins by asking the patient to rise from a chair without using his or her arms, walk and turn around, and bend down to pick up an object off the floor. Does the individual rise from a chair in a single movement, or struggle and rock and have to use his/her arms? Is he or she steady in walking and turning without grasping for support during smooth continuous movement? Does the person seem sure of him or herself when bending? Subpar performance of these simple activities may suggest an increased risk of a fall.<sup>16</sup>

A more formal testing procedure, such as the Tinetti Balance and Gait Evaluation, is helpful to assess the effect of medications for persons with neurologic disorders, as well as to assess the effect of medications that might interfere with balance.<sup>17</sup> The Tinetti assessment appears in Appendix D. The assessment should also consider the patient's weight. The body mass index or BMI estimates how much a person should weigh, based on height.<sup>18</sup> See Appendix E for the Body Mass Index Table and formula to calculate the patient's BMI.

**TIP:** *The body mass index formula does not distinguish between body fat and muscle or bone mass, so this must be considered when calculating the BMI for the older patient.*

BMI is not always an accurate way to determine whether the patient needs to lose weight. For example, it is often better for elderly patients to have a BMI between 25 and 27 versus under 25, as a slightly higher BMI may protect against osteoporosis.<sup>19</sup>

Frailty is now considered to be a geriatric syndrome.

The frail elderly person usually has 3 or more of the following characteristics: unintentional weight loss (10 lbs in past year), self-reported exhaustion, weakness (grip strength), slow walking speed, and low physical activity. Those classified as frail are more likely to experience falls, worsening mobility or ADL disability, hospitalization, and death.<sup>20</sup>

## Mental/Cognitive Assessment

Compared with younger persons, older adults are more likely to receive mental healthcare from their PCP than from a mental health specialist.<sup>21</sup> Indeed, 55% of older hospitalized patients without a prior history of psychiatric care exhibited affective and behavioral problems, including anxiety, depression, irritability, and agitation/aggression.<sup>22</sup>

An assessment of the older patient's mental and cognitive state is a critical part of an evaluation of his or her overall health. The accuracy of the medical history reported by the patient, as well as many of the other necessary assessments, depends on adequate mental and affective functioning. The patient's primary physician should be able to judge the patient's mental status, especially if a periodic assessment of mental status has been documented over time.

An informal assessment can be performed in a simple, low-pressure interview that focuses on issues significant to the patient. Familiar questions about current or former occupations, children, grandchildren, hobbies, and the like can both allay the patient's anxiety and help the physician gauge his or her current and previous level of mental and social functioning. It is also an opportunity to observe the patient's appearance and grooming, posture, behavior, speech, and word choice. The examiner should be wary, however, of hearing and visual deficits that may mimic cognitive impairment. Not surprisingly, more formal memory assessments



can be stressful for older patients. To put the patient at ease, it can be helpful for the examiner to preface his or her questions with a statement that defuses the perceived importance of the patient's responses.

**TIP:** *Begin by saying "I'm going to ask you a number of questions, some of which are easy, and some of which might be hard. Don't be offended, because these are just standard evaluation questions we ask all our patients."*

**TIP:** *During the interview, give positive reinforcement and encouragement through such expressions such as "that's OK" or "that's fine."*

For obtaining more precise and useful information about a patient's mental state, there are a number of tools available to the PCP, including the often-used Folstein Mini-Mental State Examination (MMSE) (see Appendix F).<sup>23</sup>

The Clock Drawing Test is another popular tool that can be used as a screen for cognitive impairment and to show the progression of Alzheimer's disease.<sup>24</sup> The patient is given a plain sheet of paper with a circle and asked to draw a clock showing the numerals and a specific time (e.g., 20 minutes past 11 o'clock). Patients with primarily left or dominant hemisphere dysfunction have trouble writing the numbers but execute the general plan of the clock correctly, perhaps placing lines where the numbers should be. Those with primarily right or non-dominant hemisphere dysfunction may write the numbers correctly but plan poorly, such as grouping all numbers to one side of the clock.

Clocks drawn by Alzheimer's patients may exhibit any or all of these abnormalities, as well as such behaviors as perseveration (repetition of the same number all around the clock).<sup>24</sup> Although noting the abnormalities and/or changes in the medical record is usually all that is necessary, some investigators have developed scales to rank the drawing for completeness and correctness or to rate specific components of the clock drawn and combine the ratings into a score. The simplest is the Shua-Haim method.<sup>25</sup>

### **Clock Drawing Test**

- ▶ Approximate drawing of the clock face
- ▶ Presence of numbers in sequence
- ▶ Correct spatial arrangement of numbers
- ▶ Presence of clock hands
- ▶ Hands showing approximately the correct time
- ▶ Hands depicting the exact time

Score 1 point for each positive descriptor. A total score of 4 or 5 is considered normal.

Another commonly used cognitive assessment is the Mini-Cog, which combines elements of the MMSE and clock drawing. This simple test can easily be carried out by the doctor or clinician in only about 3 minutes.<sup>26</sup>

First the patient is asked to repeat 3 unrelated words. The patient is then asked to draw a clock as described above, after which he or she is asked to recall the 3 words. If unable to recall any of the 3, the patient is categorized as "probably demented." If the patient can recall all 3 words, he or she is categorized as "probably not demented." Those who can recall 1 or 2 words are categorized based on their clock drawing test: if their clock is in any way abnormal, they are considered "probably demented." It is important to note that the Mini-Cog test results only contribute to a diagnosis of dementia. The test cannot be used in isolation from other diagnostic tests for Alzheimer's disease.

Other common mental assessment tools focus on writing and construction ability. In the former, the patient is given a blank sheet of paper and asked to write his or her name at the top of the page, followed by a complete sentence, such as a description of the day's weather. In the latter, the patient is asked to reproduce the examiner's line drawings, beginning with simple figures such as a triangle or square, and progressing to more complex drawings such as a cube, house, or flowerpot. Inability to do so can be a strong indicator of parietal lobe damage and is an early abnormality in dementia.<sup>27</sup>

For primary care physicians, however, the Short Portable Mental Status Questionnaire (SPMSQ) may be most useful. It is entirely verbal, consisting of 10 easy-to-memorize questions.<sup>28</sup>



### THE SHORT PORTABLE MENTAL STATUS QUESTIONNAIRE (SPMSQ)<sup>28</sup>

Question	Response	Incorrect Responses
1. What are the date, month, and year?		
2. What is the day of the week?		
3. What is the name of this place?		
4. What is your phone number?		
5. How old are you?		
6. When were you born?		
7. Who is the current president?		
8. Who was the president before him?		
9. What was your mother's maiden name?		
10. Can you count backward from 20 by 3's?		
SCORING: * 0-2 errors: normal mental functioning / 3-4 errors: mild cognitive impairment / 5-7 errors: moderate cognitive impairment / 8 or more errors: severe cognitive impairment * One more error is allowed in the scoring if a patient has had a grade school education or less. * One less error is allowed if the patient has had education beyond the high school level.		

symptoms of dementia is additionally enhanced by more advanced brain imaging such as position emission tomography (PET scan), which has been found to be a sensitive indicator of Alzheimer's disease and other dementias.<sup>30</sup>

When an assessment indicates cognitive impairment, the physician should consider the potential impact of depression and/or substance abuse. In fact, the Institute of Medicine recommends including the Geriatric Depression Scale (GDS) as a routine part of any comprehensive geriatric assessment because depression is so prevalent among seniors in general — and among complex chronic care patients in particular (see Appendix G).<sup>31</sup> The US Preventive Services Task Force has recently recommended alcohol screening for all adults in primary care settings. One assessment specifically designed for older patients is the Shortened Michigan Alcoholism Screening Test: Geriatric Version (SMAST-G).<sup>32</sup> The SMAST-G (see Appendix H) consists of 10 questions. Because of the time constraints of a clinical visit, however, we suggest a modified CAGE (Cut down, Annoyed, Guilty, and Eye-opener) Assessment that consists of 4 detailed yes/no questions.<sup>33</sup>

Ultimately, probable Alzheimer's may be diagnosed using the following criteria:

#### Diagnostic Criteria for Probable Alzheimer's Disease<sup>29</sup>

1. Dementia established by clinical examination and by the MMSE or a similar examination.
2. Deficits in 2 or more areas of cognition, typically progressive worsening of memory and other cognitive functions.
3. No disturbance of alertness (to distinguish Alzheimer's from delirium).
4. Onset most often after the age of 65.
5. Lack of a systemic disorder or other brain disease that could account for the findings.
6. Family history.

The diagnosis of Alzheimer's is then further supported by progressive deterioration in specific functions such as language, impaired activities of daily living, and evidence of cerebral atrophy on a CT scan. The differential diagnosis of patients with

#### CAGE

1. Have you ever felt you should cut down on your drinking/drug use?
  2. Have people annoyed you by criticizing your drinking/drug use?
  3. Have you ever felt bad or guilty about your drinking/drug use?
  4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover/drug use?
- Affirmative responses to 2 of these questions are indicative of a substance abuse problem.

### Abuse/Neglect Assessment

Dynamics surrounding elder abuse are extremely complicated and often difficult for a patient to discuss. It is essential that the healthcare professional provide a safe, private environment that allows for free expression of concerns and allegations. Whether suspected abuse involves a family member, friend, or paid caregiver, accusations of abuse or neglect made by a patient are serious matters that require referral to appropriate social services for investigation and follow-up. The healthcare professional



should also be familiar with the state requirements for mandatory reporting of suspected elder abuse.

Abuse falls into 4 categories: physical abuse, psychological abuse, neglect, and financial abuse.<sup>34</sup> Risk factors for both physical and psychological abuse of the elderly include:

- Isolation
- Diminished mental capacity as a result of dementia or Alzheimer's
- Difficulty with activities of daily living and instrumental activities of daily living
- Unusual family stress
- Excessive dependence on the caregiver
- Drug or alcohol addiction in the family
- A caregiver with untreated psychiatric problems

Acting out, hostile, or destructive behavior by the older person can also be a symptom of possible psychological stress due to mistreatment by a caregiver.

Neglect is defined as the consistent failure of a responsible party to meet one or more of the basic needs necessary to maintain optimal physical and mental functioning of an older person. Neglect may be intentional or it may be due to a lack of knowledge, resulting in failure to identify and provide services needed to reduce the risks of harm and injury to the older person. Perhaps the most significant risk factor for neglect is excessive dependence on a caregiver.<sup>35</sup> For example, a homebound chronically ill person who depends on a psychiatrically or ethically compromised caregiver is at high risk for malnutrition and acute medical episodes, resulting in physical decline.

Poor hygiene and dehydration are possibly the most common indicators of neglect. Malnutrition or low body weight should be assessed within the context of a detailed history of changes in body weight and eating habits. Interview questions should focus on appetite and access to and satisfaction with the quality and quantity of food.

The examiner should probe for more significant indicators of caregiver neglect by asking the patient whether he or she was ever left alone for prolonged periods of time or in situations in which he/she felt unsafe, such as in a park, near a stairway, or exposed to harsh environmental elements such as heat or cold. The Elder Assessment Instrument (EAI) takes only about 15 minutes to complete.<sup>34</sup> As shown in Appendix I, these indicators reveal the signs, symptoms, and subjective complaints of elder abuse, neglect, exploitation, and abandonment.

Financial abuse accounts for approximately 12% of all cases reported to protective service agencies.<sup>35</sup> Not everyone agrees on what constitutes financial abuse, but it generally refers to the inappropriate use of an older person's resources for personal gain, including but not limited to denying an older person access to their assets, taking the patient's money or property without their knowledge, providing misleading information to influence the patient's use of assets, and getting the patient to sign a legal document through deception or coercion.

**Patients at high risk for financial abuse often share certain characteristics that include:**

1. Prior or current dependence on others
2. Limited experience in handling financial affairs
3. Recent loss of a loved one
4. Social isolation and loneliness
5. Existence of family members with unmet financial needs
6. Existence of family members or acquaintances with substance abuse problems
7. Being a victim of other forms of abuse

## Social Assessment

The ability to obtain formal and informal help via social networks plays an important part in the health and independence of older adults. As such, social assessment is an important aspect of a comprehensive geriatric assessment. The quality and density of the patient's social environment are critical factors in determining his or her ability to remain living at home. The bare minimum assessment of a person's social network should include 3 questions.<sup>36</sup>

**Minimum Assessment of Social Network**

1. Does the patient have anyone to contact when he or she needs help, and if so, who is that person?
2. How many relatives (other than children) does the patient feel close to and have contact with at least once a month?
3. How many friends does the patient feel close to and have contact with at least once a month?



Social assessment, however, should also include motivation and capacity of those persons to provide assistance when needed. To obtain a clearer picture of the patient's social network, the Lubben Social Network Scale (see Appendix J) may be a more useful tool.<sup>37</sup>

More than 80% of all care is delivered by family caregivers.<sup>38</sup> Consequently, the social assessment should also include at least an informal assessment of the physical and emotional health of the family caregivers, some of whom may be present with the patient at the doctor's appointment. In the end, the caregiver's ability to manage the stress and responsibility of providing ongoing home care is vital to the patient's well-being.<sup>39</sup> Healthcare professionals should be aware that caring family members may, for a variety of complex psychodynamic reasons, shield their relative from intrusive questions or procedures. They may even cover up deficiencies in the older patient's performance. The family member should also be considered a critical factor in determining if and how a patient can remain at home.

## Financial Assessment

The patient's personal finances can directly affect his or her health, nutritional status, and residence. For example, an older person with insufficient funds may alter the dosage schedule or fail to take a prescribed medication altogether. A financial assessment includes an evaluation of personal income and assets, as well as health insurance. Understandably, the physician may feel uncomfortable with this line of questioning. There may be some external clues as to the patient's financial status, such as the condition of clothing, personal hygiene, and condition of teeth. A home visit by a care manager may provide a more comprehensive picture, but even that cannot be wholly relied upon. We are all familiar with the classic image of the miserly old man who lives in squalor yet possesses an enviably large bank account.

A formal financial assessment tool such as the Economic Resources Assessment Scale of the Older Americans Resources and Services Multidimensional Functional Assessment Questionnaire (OMFAQ) can offer more detailed information to assist in planning for long-term care.<sup>40</sup> This scale, however, is quite long and complicated to administer. Financial burden can be more easily assessed by asking 3 simple questions:

1. Does the patient feel that he or she has money left over at the end of the month?
2. Does the patient feel that he or she has just enough money at the end of the month?
3. Does the patient feel that he or she has not enough money left at the end of the month?

Ultimately, a referral to a care manager for exploration of resources and long-term care planning is often valuable.

## Environmental Assessment

Problems in the patient's environment may limit his or her ability to carry out a care plan. The goals of the environmental assessment are to promote mobility, reduce the likelihood of falling, ensure continued independence, and improve the quality of life. In many cases, the assessment of the home brings out problems that are not readily apparent during an office interview. A thorough environmental assessment should evaluate the condition of the living arrangements, the nature of the neighborhood, including the physical infrastructure, and the transportation system. Since an evaluation usually requires a home visit, the PCP can refer to a community-based provider, such as a care manager or social work agency, to perform an environmental assessment.

To obtain some general information about the degree of safety in the patient's home and his or her risk of falling, the Home Safety Checklist (see Appendix K) can be administered in the physician's office, but the patient has to be a reliable informant.<sup>41</sup>

## Spiritual Assessment

Aging and introspection often go hand in hand. The older patient often reflects on his or her accomplishments, wonders about their meaning and purpose, and may reconnect with previously abandoned spiritual values. As such, a systematic approach to an assessment of the patient's spiritual life can provide valuable perspective on the overall well-being of the older adult. Recent literature related to spirituality and aging noted that intrinsic religiosity and a sense of spiritual well-being are strongly associated with hope and positive mood states.<sup>42</sup> In contrast, spiritual distress — defined as a feeling of despair or alienation related to religious, moral, or other beliefs/values — can have a notably adverse effect on the patient's health and well-being.



An assessment tool, the Spiritual Involvement and Beliefs Scale, appears in Appendix L.<sup>43</sup> Generally, disruption of the patient's usual religious activities, personal and family disasters, loss of significant others, and engagement in behaviors outside societal/cultural norms are common precipitants of spiritual distress.

### SIGNS OF SPIRITUAL DISTRESS

1. Feeling separated or alienated from the deity
2. Dissatisfaction with one's past or present
3. Depression
4. Crying
5. Self-destructive behaviors or threats
6. Fear
7. Feelings of abandonment
8. Feelings of hopelessness

## Summary

- ▶ Standardized assessments provide important benchmark data that help healthcare professionals develop effective care plans.
- ▶ Assessments should be repeated regularly to identify physical and psychosocial changes that could adversely affect the patient's well-being.
- ▶ Assessments roughly fall into 8 categories: Functional, Physical, Mental/Cognitive, Abuse/Neglect, Social, Financial, Environmental, and Spiritual.
- ▶ Referral to community-based providers can often facilitate the assessment process.

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# V Managing the Chronic Care Patient

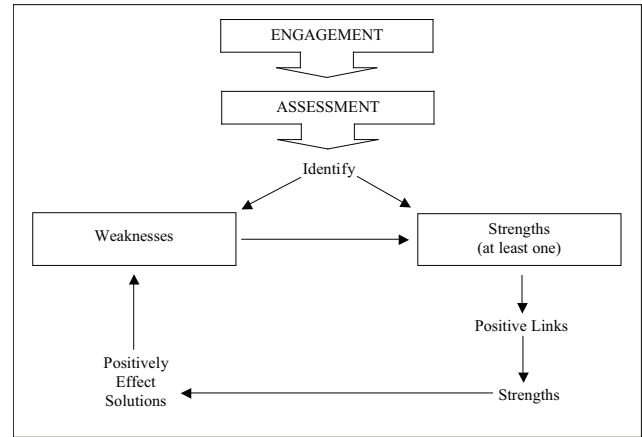
By definition, the patient with a chronic illness does not recover. Indeed, most patients will eventually deteriorate despite the physician's best efforts. The goal, therefore, is to maintain optimal functional independence and quality of life.

The more complex the patient's medical and psychosocial situation, the more challenging the management task becomes. In the previous section and in the Appendices, we provide a fairly exhaustive standardized approach to the assessment process. More important than obtaining extensive information, however, is that the patient/family accepts a consistent approach to the evaluation and ongoing management process. The physician's ability to engage the patient by establishing a positive link is key. This is accomplished by first creating a welcoming environment and immediately addressing what the patient believes is his or her primary problem or concern.

The use of a pre-appointment questionnaire helps organize the patient and family and prepares them for the assessment process. It also helps establish a more positive relationship by allowing the physician to focus on the patient's strengths rather than his or her weaknesses (i.e., what the patient can do versus what he or she can't).

**TIP:** *Simple, non-threatening questions (e.g., "Tell me about a typical day," or "How did you spend yesterday?") not only provide useful insight into a patient's functional strengths and weaknesses, but also help relax and build rapport among the patient, family, and doctor.*

The chart in the next column illustrates this process: The physician creates a safe environment and encourages the patient to tell his or her story. Exploring the patient's perception of his or her strengths, values, and quality of life, the physician can engage the patient in the more challenging assessment of clinical problems and functional deficits. By building the treatment plans on the foundation of strengths, patient adherence to recommendations will be more likely.



A physician should address not only the patient's current status, but his or her future health and care management concerns. At some point, the primary care physician may well need to be the initiator — or at least a participant — in some difficult discussions. The 3 most common are about an advance directive, accepting professional care, and placement in a long-term care facility.

Many physicians may be hesitant to respect an advance directive, let alone initiate a discussion on the subject with the patient or family members. Some may not want to be perceived by the family as somehow "giving up." Others may simply be uncomfortable being part of such a private, delicate, and emotionally charged conversation. Nevertheless, the patient and family need the perspective of a concerned clinician, and the doctor with whom they have established a bond of honest communication is a logical candidate.

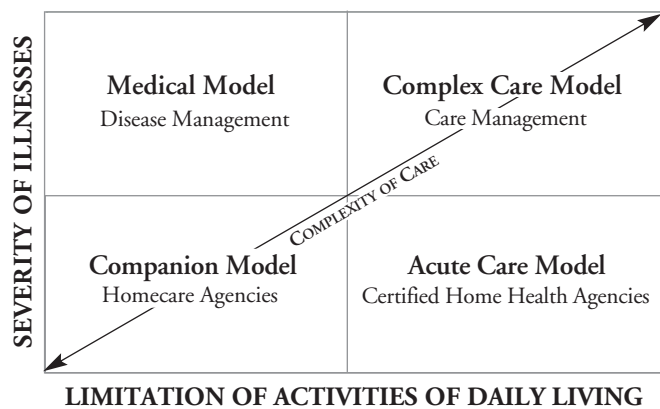
Similarly, it can be difficult for physicians to initiate discussions about home care, nursing homes, and other options when, in their professional judgment, the patient can no longer remain independent. It may be useful to employ the algorithm for Long-Term Care Needs Assessment (see Appendix M), which was designed to guide physicians toward sound decisions regarding long-term care.<sup>40</sup>



## Outside Resources

Many community-based healthcare professionals do not have the time or resources to conduct the comprehensive assessments necessary to effectively evaluate geriatric and other complex chronic care patients. As previously mentioned, it may be necessary to outsource aspects of the process to community-based resources in order to obtain the information needed to understand and manage the patient's home environment, family, and financial situation.

The following chart illustrates how patients' relative need for assistance in performing Activities of Daily Living and Instrumental Activities of Daily Living determines the care model and type of resources needed.



### **Companion Model**

Although these patients may have multiple chronic illnesses, they have little or no IADL or ADL deficits. They may require advocacy, information, and referrals to short-term services, or consultation for long-term healthcare planning. They may elect to purchase services to maintain quality of life and maximum function. Examples of resources for patients in this care model include:

- Social service programs
- Area agencies for aging
- Senior centers
- Companions and housekeepers
- Natural supports, such as doormen, friends, neighbors, family members
- Religious centers and programs
- Elder law attorneys
- Accountants, bill payers, and financial advisors

### **Medical Model**

These patients are characterized by having deficits primarily in IADLs. They require help in negotiating the social and healthcare system, as well as managing their finances and other daily activities. They are at risk for malnutrition, medication errors, and exploitation. Examples of appropriate resources include:

- Geriatric care managers
- Elder law attorneys
- Accountants, bill payers, and financial advisors
- Transportation services
- Companions
- Adult day care
- Memory disorder evaluation programs
- Dementia programs
- Mental health services

### **Acute Care Model**

These patients have lost the ability to perform many of their ADLs due to a physical loss related to an acute medical event. They require personal hands-on care but can usually plan and/or direct the execution of their daily lives because they have no significant cognitive losses. Examples of resources for patients in this quadrant include:

- Certified home healthcare (Medicare)
- Rehabilitation services (physical therapy, occupational therapy, speech therapy)
- Mental health services
- Wound care
- Infusion therapy

### **Complex Care Model**

These patients can no longer advocate for themselves and have lost the ability to manage their personal care needs. Their multiple coexisting medical and social problems require a multidisciplinary team approach that coordinates comprehensive services over a 24/7 continuum of need. Resources for complex care patients include:

- Complex chronic care agencies
- Skilled nursing facilities
- Hospice
- Palliative care



The more vulnerable the patient, the more important it is for the primary healthcare provider to help connect the patient with the appropriate resources. Patients who fall into the Complex Care model may be best served by direct referral to a comprehensive program that is able to address the full range of assessment and management responsibilities outlined in this guide. SeniorBridge's screening tool, Managing Complex Chronic Care, (MC3) (see Appendix N) is designed to help community-based healthcare providers identify those patients who are at risk for preventable hospitalizations and should be referred to a complex chronic care management agency.

## Summary

- ▶ A safe but structured environment is necessary to engage the patient in an assessment of strengths and weaknesses.
- ▶ Treatment recommendations and difficult discussions can be facilitated through an understanding and appreciation of patients' functional and psychosocial strengths.
- ▶ Based on the assessment, the physician should be able to differentially recommend long-term care resources most suitable to provide the support and care needed by the patient.

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<sup>40</sup> Fillenbaum G, Gallo JJ, Fulmer T, Paveza GJ, Reichel W. *Handbook of Geriatric Assessment*, 2nd ed. Rockville, MD: Aspen Publishers; 2000:170,174-177.



## VI Transitions

The risks to aging patients with complex chronic care issues are greatest as they are transitioned from one healthcare setting to another — from the hospital to a nursing or rehabilitation center, or to home. Various factors contribute to the increased risk, ranging from inadequate support at home to fragmented healthcare, uninformed patients who can't navigate the system, and disengaged physicians with no standard inter-provider communication process.

Fifty percent (50%) of re-hospitalized Medicare beneficiaries did not see a doctor from discharge to time of re-hospitalization.<sup>44</sup> Many of these re-hospitalizations are preventable.<sup>45</sup> All this may contribute to the fact that the national 30-day readmission rate among Medicare beneficiaries is close to 20%, and to 34% within 90 days.<sup>44</sup> Re-hospitalization is not only costly, it can be life-threatening.<sup>45</sup> Considerable research has focused on exploring factors that could reduce these risks and suggests that interventions at the time of discharge can decrease the rates of re-hospitalization.<sup>46,47</sup>

Medicare funded 15 demonstration projects with different care coordination models providing patient education and monitoring in hopes that various care management processes would improve quality of care, reduce risk of hospitalization, and decrease costs.<sup>48</sup> The care management programs that utilized in-person contact were found to be the most effective for patients who are at the highest risk for hospitalization — those with complex needs. These programs included 7 key approaches to coordinating care at home.<sup>49</sup>

1. Face-to-face contact with the patient
2. Building rapport with physicians
3. Patient education
4. Managing care settings transitions
5. Communications hub
6. Medication management
7. Addressing psychosocial issues

The Better Outcomes For Older Adults Through Safe Transitions (BOOST) project calls for the identification of 7 risk factors associated with patients who will be a greater risk for adverse events following a discharge and/or hospital re-admission.<sup>50</sup>

### The Seven “P’s”

1. **Principle Diagnosis** — patients with a diagnosis of cancer, stroke, diabetes, or heart failure
2. **Problem Medications** — patients with prescriptions of warfarin, insulin, digoxin, and aspirin when used in combination with clopidogrel
3. **Polypharmacy** — patients taking 5 or more scheduled medications
4. **Poor Health Literacy** — patients with limited understanding of their condition and treatment recommendations
5. **Punk (Depression)** — depression is often undiagnosed in older patients
6. **Prior Hospitalizations in Last 6 Months**
7. **Patient Support at Home** — absence of formal or informal caregiving

The BOOST protocol begins on admission and progresses throughout the hospitalization. In addition to risk-specific interventions, all patients should receive all the components of the Universal Patient Discharge Checklist, highlights of which include:

- Medications reconciled with preadmission list.
- Medication use/side effects reviewed using teach-back with patients/caregivers.
- Teach-back used to confirm patient/caregiver understanding of diagnosis, prognosis, self-care requirements, and symptoms of complications requiring immediate medical attention.
- Action plan for management of symptoms/side effects/ complications requiring medical attention established and shared with patient/caregiver using teach-back.
- Discharge education plan completed, taught, provided to patient/caregiver at discharge.
- Discharge communication provided to post-hospitalization care providers.



- Documented receipt of discharge information from principal care providers.
- Direct communication with principal outpatient provider at discharge.
- Telephone contact arranged within 72 hours of discharge in order to assess the patient's condition and adherence and to reinforce follow-up.
- Target medication safety.

### Care Transitions Program<sup>SM</sup>

The Care Transitions Program model provides tools to identify patients at risk for readmission or other poor post-discharge outcomes, and supports an optimized discharge process by:

- Preparing patients and families for the discharge.
- Utilizing the teach-back process to ensure they understand care plans, self-care instructions, and follow-up appointment.
- Communicating key information to the receiving physicians.

The Care Transitions Program improves care transitions by providing patients and their caregivers tools to be more active in managing their transition from hospital to home. The program utilizes an advanced practice nurse as the “transition care coach” who coordinates transitional care around “The Four Pillars of Hospital Transition.”<sup>46,51</sup>

1. Medication self management – ensure patient is knowledgeable about his or her medications and has a medication management system.
2. Patient-centered medical record – to help the patient and/or caregiver manage the care.
3. Follow-up – by primary care and specialists.
4. Red flag identification – patient and/or caregiver can identify signs of condition worsening and how to respond.

The transition coach first visits the patient in the hospital prior to discharge and then sees the patient at home a few days later. Home visits as well as follow-up telephone contacts continue for 4 weeks to ensure that the patient develops skill in using the patient-centered medical record system and can manage the medications and identify red flags. The patient and caregivers are encouraged to contact the transition coach at any time with questions.

The American College of Physicians (ACP), Society of Hospital Medicine (SHM), Society of General Internal Medicine (SGIM), American Geriatrics Society (AGS), American College of Emergency Physicians (ACEP), and the Society for Academic Emergency Medicine (SAEM) have also developed consensus standards to address the quality gaps in the transitions between inpatient and outpatient settings.<sup>52</sup> These are:

1. Accountability.
2. Communication.
3. Timely interchange of information.
4. Involvement of the patient and family member.
5. Respect for the hub of coordination of care.
6. All patients and their family/caregivers should have a medical home or coordinating clinician.
7. At every point of transition, the patient and/or their family/caregivers need to know who is responsible for their care at that point.
8. Standardized metrics related to these standards in order to lead to quality improvement and accountability.

PCPs can also facilitate safe transitions by identifying which patients are at risk—those with ADL or IADL deficits and those who can not manage their care—recognizing the psychosocial as well as physical factors that influence health outcomes and helping patients and families to access an interdisciplinary care team to help guide their decision making and caregiving.

### Summary

- Primary care providers, acute and sub-acute health facilities, and Medicare-certified home health agencies need to be aware of the high risk of hospitalizations and emergency room visits for patients with complex chronic illnesses.
- Primary care providers must identify those patients who are at the highest risk.
- Primary care providers can take steps to facilitate safe transitions or collaborate with community-based providers who can provide care coordination, caregiver education, and patient monitoring following a discharge.



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- <sup>48</sup> Peikes D, Chen A, Schore J, Brown R. Effects of care coordination on hospitalization, quality of care, and health care expenditures among Medicare beneficiaries: 15 randomized trials. *JAMA*. 2009;301(6):603-618.
- <sup>49</sup> Brown R, Peikes D, Peterson G. Features of successful care coordination programs: Webinar on care management of patients with complex health care needs. Washington, DC: Mathematica Policy Research, Inc.; December 2009. [http://www.mathematica-mpr.com/publications/PDFs/health/carecoord\\_brown.pdf](http://www.mathematica-mpr.com/publications/PDFs/health/carecoord_brown.pdf).
- <sup>50</sup> Better Outcomes for Older Adults Through Safe Transitions (BOOST). Society for Hospital Medicine. [www.hospitalmedicine.org/BOOST](http://www.hospitalmedicine.org/BOOST).
- <sup>51</sup> Parry C, Coleman EA, Smith JD, Frank JC, Kramer AM. The care transitions intervention: a patient-centered approach to facilitating effective transfers between sites of geriatric care. *Home Health Care Serv Q*. 2003;22(3):1-17.
- <sup>52</sup> Snow V, Beck D, Budnitz T, et al. Transitions of Care Consensus Policy Statement: American College of Physician-Society of General Internal Medicine-Society of Hospital Medicine-American Geriatrics Society-American College of Emergency Physicians-Society of Academic Emergency Medicine. *J Gen Intern Med*. 2009;24(8):971-976.



## VII In Conclusion

As our population continues to age and medical science makes it possible to manage diseases and disorders once considered fatal, PCPs will see more older Americans with a combination of debilitating cognitive, social, and physical changes. The complexities of multiple diagnoses and care plans, as well as the continuing decline in patients' ability to manage their own health, make these patients a serious challenge for the community-based healthcare professional. To maintain optimal quality of life and functionality, complex chronic care patients are often best served by working with an agency experienced at coordinating the efforts of the family and a team of healthcare and other professionals — including their personal physician.

In fact, the role of the PCP is more important than ever, because he or she may be the only professional who sees these patients consistently enough to identify changes in their physical and mental state. As such, it is incumbent upon them to determine the extent of those changes and help patients and their families come to terms with their impact.

It is our hope that the information we have presented, and the variety of assessment tools offered in the Appendices, will make it easier for private practitioners and other healthcare professionals to accomplish what they want most: to ensure the best possible care for their patients.



# Appendix A: Katz Index of Independence in Activities of Daily Living

<b>ACTIVITIES: (1 or 0 POINTS)</b>	<b>INDEPENDENCE: (1 POINT)</b>  NO supervision, direction, or personal assistance)	<b>DEPENDENCE: (0 POINTS)</b>  WITH supervision, direction, personal assistance, or total care
<b>BATHING</b>  Points: _____	(1 POINT) Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area, or disabled extremity.	(0 POINTS) Needs help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing.
<b>DRESSING</b>  Points: _____	(1 POINT) Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	(0 POINTS) Needs help with dressing self or needs to be completely dressed.
<b>TOILETING</b>  Points: _____	(1 POINT) Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	(0 POINTS) Needs help transferring to the toilet, cleaning self, or uses bedpan or commode.
<b>TRANSFERRING</b>  Points: _____	(1 POINT) Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable.	(0 POINTS) Needs help in moving from bed to chair or requires a complete transfer.
<b>CONTINENCE</b>  Points: _____	(1 POINT) Exercises complete self-control over urination and defecation.	(0 POINTS) Is partly or totally incontinent of bowel or bladder.
<b>FEEDING</b>  Points: _____	(1 POINT) Gets food from plate into mouth without help. Preparation of food may be done by another person.	(0 POINTS) Needs partial or total help with feeding or requires parenteral feeding.

<b>TOTAL POINTS = _____</b> 6 = High (patient independent)    0 = Low (patient very dependent)
------------------------------------------------------------------------------------------------



# Appendix B: Instrumental Activities of Daily Living Scale

<b>A. Ability to use telephone</b>		<b>E. Laundry</b>	
1. Operates telephone on own initiative; looks up and dials numbers, etc.	1	1. Does personal laundry completely	1
2. Dials a few well-known numbers	1	2. Launders small items; rinses stockings, etc.	1
3. Answers telephone but does not dial	1	3. All laundry must be done by others	0
4. Does not use telephone at all	0		
<b>B. Shopping</b>		<b>F. Mode of Transportation</b>	
1. Takes care of all shopping needs independently	1	1. Travels independently on public transportation or drives own car	1
2. Shops independently for small purchases	0	2. Arranges own travel via taxi, but does not otherwise use public transportation	1
3. Needs to be accompanied on any shopping trip	0	3. Travels on public transportation when accompanied by another	1
4. Completely unable to shop	0	4. Travel limited to taxi or automobile with assistance of another	0
		5. Does not travel at all	0
<b>C. Food Preparation</b>		<b>G. Responsibility for Own Medication</b>	
1. Plans, prepares, and serves adequate meals independently	1	1. Is responsible for taking medication in correct dosage at correct time	1
2. Prepares adequate meals if supplied with ingredients	0	2. Takes responsibility if medication is prepared in advance in separate dosage	0
3. Heats, serves, and prepares meals or prepares meals but does not maintain adequate diet	0	3. Is not capable of dispensing own medication	0
4. Needs to have meal prepared and served	0		
<b>D. Housekeeping</b>		<b>H. Ability to Handle Finances</b>	
1. Maintains house alone or with occasional assistants (e.g., "heavy work domestic help")	1	1. Manages financial matters independently (budgets, writes checks, pays rent, bills, goes to bank), collects and keeps track of income	1
2. Performs light daily tasks such as dishwashing, bed making	1	2. Manages day-to-day purchases, but needs help with banking, major purchases, etc.	0
3. Performs light daily tasks but cannot maintain acceptable level of cleanliness	1	3. Incapable of handling money	0
4. Needs help with all home maintenance tasks	1		
5. Does not participate in any housekeeping tasks	0		

Patients are scored according to their highest level of functioning in a category. A summary score ranges from 0 (low functioning, dependent) to 8 for women and 5 for men (high functioning, independent).<sup>53</sup>

<sup>53</sup> Source: Lawton MP, Brody EM. Assessment of older people: self-maintaining and instrumental activities of daily living. *Gerontologist*. 1969;9:179-186.

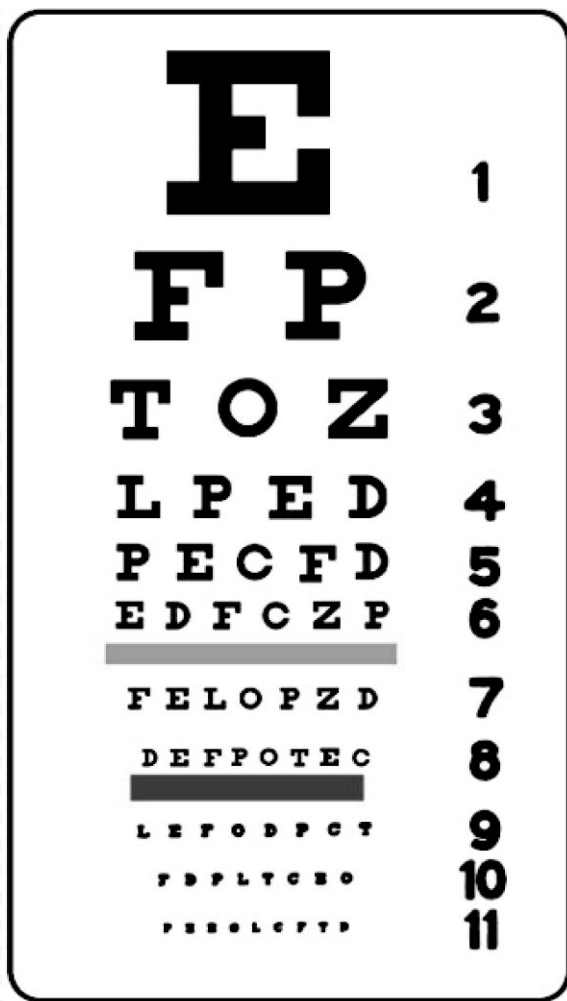


# Appendix C: Vision Screening

## Snellen Chart

(actual size 22" x 11")

Read from 20'



## Rosenbaum Pocket Vision Screener

(actual size 6 3/8" x 3 1/2")

Read from 14"





## Appendix D: Tinetti Balance and Gait Evaluation

### BALANCE

*Instructions:* Seat the subject in a hard, armless chair. Test the following maneuvers. Select one number that best describes the subject's performance in each test and add up the scores at the end.

1. ***Sitting balance***
  - Leans or slides in chair = 0
  - Steady, safe = 1 \_\_\_\_\_
2. ***Arising***
  - Unstable without help = 0
  - Able but uses arms to help = 1
  - Able without use of arms = 2 \_\_\_\_\_
3. ***Attempt to arise***
  - Unable without help = 0
  - Able but requires more than one attempt = 1
  - Able to arise with one attempt = 2 \_\_\_\_\_
4. ***Immediate standing balance*** (first 5 seconds)
  - Unsteady (staggers, moves feet, marked trunk sway) = 0
  - Steady but uses walker or cane or grabs other objects for support = 1
  - Steady without walker, cane, or other support = 2 \_\_\_\_\_
5. ***Standing balance***
  - Unsteady = 0
  - Steady but wide stance (medial heels more than 4 inches apart) or uses cane, walker, or other support = 1
  - Narrow stance without support = 2 \_\_\_\_\_
6. ***Nudging*** (with subject's feet as close together as possible, push lightly on the sternum with palm of hand three times)
  - Begins to fall = 0
  - Staggers and grabs, but catches self = 1
  - Steady = 2 \_\_\_\_\_
7. ***Eyes closed*** (at same position as in #6)
  - Unsteady = 0
  - Steady = 1 \_\_\_\_\_
8. ***Turning 360 degrees***
  - Discontinuous steps = 0
  - Continuous steps = 1
  - Unsteady (grabs and staggers) = 0
  - Steady = 1 \_\_\_\_\_
9. ***Sitting down***
  - Unsafe (misjudges distance, falls into chair) = 0
  - Uses arms or lacks smooth motion = 1
  - Safe, smooth motion = 2 \_\_\_\_\_



## GAIT

*Instructions:* The subject stands with the examiner, and then walks down hallway or across room, first at the usual pace and then back at a rapid but safe pace, using a cane or walker if accustomed to one.

**10. *Initiation of gait*** (immediately after being told to go)

Any hesitancy or several attempts to start = 0  
No hesitancy = 1 \_\_\_\_\_

**11. *Step length and height***

*Right swing foot:*

Fails to pass left stance foot with step = 0  
Passes left stance foot = 1 \_\_\_\_\_  
Fails to clear floor completely with step = 0  
Completely clears floor = 1 \_\_\_\_\_

*Left swing foot:*

Fails to pass right stance foot with step = 0  
Passes right stance foot = 1 \_\_\_\_\_  
Fails to clear floor completely with step = 0  
Completely clears floor = 1 \_\_\_\_\_

**12. *Step symmetry***

Right and left step length unequal = 0  
Right and left step equal = 1 \_\_\_\_\_

**13. *Step continuity***

Stopping or discontinuity between steps = 0  
Steps appear continuous = 1 \_\_\_\_\_

**14. *Path*** (observe excursion of either left or right foot over about 10 feet of the course.)

Marked deviation = 0  
Mild to moderate deviation or uses walking aid = 1  
Walks straight without aid = 2 \_\_\_\_\_

**15. *Trunk***

Marked sway or uses walking aid = 0  
No sway but flexion of knees or back or spreads arms out while walking = 1  
No sway, flexion, use of arms, or use of walking aid = 2 \_\_\_\_\_

**16. *Walking stance***

Heels apart = 0  
Heels almost touch while walking = 1

Balance Score \_\_\_\_/16      Gait Score: \_\_\_\_/12

**Total Score: \_\_\_\_/28**

If marked gait or balance disorder identified, look for: weakness; sensory dysfunction (proprioception, vision, vestibular system); change in tone (spasticity or rigidity); joint contractures; central processing dysfunction.<sup>54</sup>

<sup>54</sup> Tinetti ME. Performance-oriented assessment of mobility problems in elderly patients. Copyright 1986 by Williams and Wilkins. Adapted with permission of Williams and Wilkins via the Copyright Clearance Center.



## Appendix E: Body Mass Index Calculation

To calculate body mass index or BMI:

- ▶ Weigh the patient.
- ▶ Multiply the patient's weight in pounds by 703.
- ▶ Divide the result by the patient's height in inches.
- ▶ Divide the result by the height in inches again.

The resulting number is the patient's BMI.


For example, a woman who weighs 270 pounds and is 68 inches tall has a BMI of 41.0.

Use the chart below to determine the patient's weight category.

<b>BMI</b>	<b>CATEGORY</b>
Below 18.5	Underweight
18.5 - 24.9	Healthy
25.0 - 29.9	Overweight
30.0 - 39.9	Obese
Over 40	Morbidly obese



# Appendix F: Folstein Mini-Mental State Examination<sup>55</sup>

Maximum Score	Orientation
5	What is the (year) (season) (date) (month)?
5	Where are we (state) (county) (town) (hospital) (floor)?
	<b>Registration</b>
3	Name 3 objects: one second to say each. Then ask the patient all 3 after you have said them.  Give one point for each correct answer. Repeat them until he or she learns all 3. Count trials and record number.
	<b>Attention and Calculation</b>
5	Begin with 100 and count backward by 7 (stop after 5 answers). Alternatively, spell "world" backwards.
	<b>Recall</b>
3	Ask for the 3 objects repeated above.
	<b>Language</b>
2	Show a pencil and a watch and ask the patient to name them.
1	Repeat the following: "No ifs, ands, or buts."
3	A 3-stage command: "Take a paper in your right hand, fold it in half, and put it on the floor."
1	Read and obey the following: (show written item)  CLOSE YOUR EYES
1	Write a sentence.
1	Copy a design (complex polygon)  

<sup>55</sup> Folstein MF, Folstein SE, McHugh PR. Mini-Mental State: a practical method for grading the cognitive state of patients for the clinician. *J Psychiatric Res.* 1975;12(3):189-198.



## Appendix G: Geriatric Depression Scale (GDS)

1. Are you basically satisfied with your life? (NO)
2. Have you dropped many of your activities and interests? (YES)
3. Do you feel that your life is empty? (YES)
4. Do you often get bored? (YES)
5. Are you hopeful about the future? (NO)
6. Are you bothered by thoughts that you just cannot get out of your head? (YES)
7. Are you in good spirits most of the time? (NO)
8. Are you afraid that something bad is going to happen to you? (YES)
9. Do you feel happy most of the time? (NO)
10. Do you often feel helpless? (YES)
11. Do you often get restless and fidgety? (YES)
12. Do you prefer to stay home at night rather than go out and do new things? (YES)
13. Do you frequently worry about the future? (YES)
14. Do you feel that you have more problems with memory than most? (YES)
15. Do you think it is wonderful to be alive now? (NO)
16. Do you often feel downhearted and blue? (YES)
17. Do you feel pretty worthless the way you are now? (YES)
18. Do you worry a lot about the past? (YES)
19. Do you find life very exciting? (NO)
20. Is it hard for you to get started on new projects? (YES)
21. Do you feel full of energy? (NO)
22. Do you feel that your situation is hopeless? (YES)
23. Do you think that most persons are better off than you are? (YES)
24. Do you frequently get upset over little things? (YES)
25. Do you frequently feel like crying? (YES)
26. Do you have trouble concentrating? (YES)
27. Do you enjoy getting up in the morning? (NO)
28. Do you prefer to avoid social gatherings? (YES)
29. Is it easy for you to make decisions? (NO)
30. Is your mind as clear as it used to be? (NO)

Score by assigning one point for each answer that matches the yes or no in parentheses beside the each question. A score above 10 or 11 may indicate depression.

A shorter, 15-question version of the GDS uses questions 1-4, 7-9, 12, 13, 14, 15, 17, and 21-23. For the short version, scores of 5 or more may indicate depression.



## Appendix H: Shortened Michigan Alcoholism Screening Test: Geriatric Version

1. When talking with others, do you ever underestimate how much you actually drink?
2. After a few drinks, have you sometimes not eaten or been able to skip a meal because you didn't feel hungry?
3. Does having a few drinks help decrease your shakiness or tremors?
4. Does alcohol sometimes make it hard for you to remember parts of the day or night?
5. Do you usually take a drink to relax or calm your nerves?
6. Do you drink to take your mind off problems?
7. Have you ever increased your drinking after experiencing a loss in your life?
8. Has a doctor or nurse ever said that he or she was worried or concerned about your drinking?
9. Have you ever made rules to manage your drinking?
10. When you feel lonely, does having a drink help?

If the respondent answers "yes" to 2 or more of these questions, further investigation is warranted.



# Appendix I: Elder Abuse Assessment Instrument

Instructions: There is no score for this instrument. A patient should be referred to social services whenever:

1. There is positive evidence without sufficient clinical explanation.
2. The older adult makes a subjective complaint of mistreatment.
3. The clinician deems there is evidence of abuse, neglect, exploitation, or abandonment.

1. General Assessment	Very Good	Good	Poor	Very Poor	Unable to Assess
a. Clothing					
b. Hygiene					
c. Nutrition					
d. Skin integrity					
Additional Comments:					

2. Possible Abuse Indicators	No Evidence	Possible Evidence	Probable Evidence	Definite Evidence	Unable to Assess
a. Bruising					
b. Lacerations					
c. Fractures					
d. Various stages of healing of any bruises or fractures					
e. Evidence of sexual abuse					
f. Statement by older adult related to abuse					
Additional Comments:					

3. Possible Neglect Indicators	No Evidence	Possible Evidence	Probable Evidence	Definite Evidence	Unable to Assess
a. Contractures					
b. Decubiti					
c. Dehydration					
d. Diarrhea					
e. Depression					
f. Impaction					
g. Malnutrition					
h. Urine burns					
i. Poor hygiene					
j. Failure to respond to warning of obvious disease					
k. Inappropriate medications (over/under)					
l. Repetitive hospital admissions due to probable failure of healthcare surveillance					
m. Statement by older adult related to neglect					
Additional Comments:					



<b>4. Possible Exploitation Indicators</b>	<b>No Evidence</b>	<b>Possible Evidence</b>	<b>Probable Evidence</b>	<b>Definite Evidence</b>	<b>Unable to Assess</b>
a. Misuse of money					
b. Evidence					
c. Reports of demands for goods in exchange for services					
d. Inability to account for money/property					
e. Statement by older adult related to exploitation					
Additional Comments:					

<b>5. Possible Abandonment Indicators</b>	<b>No Evidence</b>	<b>Possible Evidence</b>	<b>Probable Evidence</b>	<b>Definite Evidence</b>	<b>Unable to Assess</b>
a. Evidence that a caretaker has withdrawn care precipitously without alternate arrangements					
b. Evidence that older adult is left alone in an unsafe environment for extended periods of time without adequate support					
c. Statement by older adult related to abandonment					
Additional Comments:					

<b>Summary</b>	<b>No Evidence</b>	<b>Possible Evidence</b>	<b>Probable Evidence</b>	<b>Definite Evidence</b>	<b>Unable to Assess</b>
Evidence of Abuse					
Evidence of Neglect					
Evidence of Exploitation					
Evidence of Abandonment					
Additional Comments:					



# Appendix J: Lubben Social Network Scale (LSNS)

## **FAMILY NETWORKS**

1. How many relatives do you see or hear from at least once a month? (Note: include in-laws with relatives)

- |          |                   |
|----------|-------------------|
| 0 = zero | 3 = three or four |
| 1 = one  | 4 = five to eight |
| 2 = two  | 5 = nine or more  |

2. Tell me about the relative with whom you have the most contact. How often do you see or hear from that person?

- |                         |                        |
|-------------------------|------------------------|
| 0 = < monthly           | 3 = weekly             |
| 1 = monthly             | 4 = a few times a week |
| 2 = a few times a month | 5 = daily              |

3. How many relatives do you feel close to? That is, how many of them do you feel at ease with, able to talk to about private matters, or able to call on for help?

- |          |                   |
|----------|-------------------|
| 0 = zero | 3 = three or four |
| 1 = one  | 4 = five to eight |
| 2 = two  | 5 = nine or more  |

## **FRIENDS NETWORKS**

4. Do you have any close friends? That is, do you have any friends with whom you feel at ease, can talk to about private matters, or can call on for help? If so, how many?

- |          |                   |
|----------|-------------------|
| 0 = zero | 3 = three or four |
| 1 = one  | 4 = five to eight |
| 2 = two  | 5 = nine or more  |

5. How many of these friends do you see or hear from at least once a month?

- |          |                   |
|----------|-------------------|
| 0 = zero | 3 = three or four |
| 1 = one  | 4 = five to eight |
| 2 = two  | 5 = nine or more  |

6. Tell me about the friend with whom you have the most contact. How often do you see or hear from that person?

- |                         |                        |
|-------------------------|------------------------|
| 0 = < monthly           | 3 = weekly             |
| 1 = monthly             | 4 = a few times a week |
| 2 = a few times a month | 5 = daily              |



### CONFIDANT RELATIONSHIPS

7. When you have an important decision to make, do you have someone you can talk to about it?

Always	Very Often	Often	Sometimes	Seldom	Never	_____
5	4	3	2	1	0	_____

8. When other people you know have an important decision to make, do they talk to you about it?

Always	Very Often	Often	Sometimes	Seldom	Never	_____
5	4	3	2	1	0	_____

### HELPING OTHERS

9a. Does anybody rely on you to do something for them each day (e.g., shopping, cooking dinner, doing repairs, cleaning house, providing child care, etc.)?

NO — if no, go on to 9b.

YES — if yes, Question 9 is scored 5. Skip to 10.

9b. Do you help anybody with things like shopping, filling out forms, doing repairs, and providing child care?

Always	Very Often	Often	Sometimes	Seldom	Never	_____
5	4	3	2	1	0	_____

### LIVING ARRANGEMENTS

10. Do you live alone or with other people? (note: include in-laws with the relatives)

5 = Live with spouse

4 = Live with other relatives or friends

1 = Live with other unrelated individuals (e.g., paid help)

0 = Live alone

\_\_\_\_\_

**TOTAL LSNS SCORE** \_\_\_\_\_

### SCORING

The total LSNS score is obtained by adding up scores from each of the 10 individual items. Thus, total LSNS scores can range from 0 to 50. Scores on each item were anchored between 0 and 5 to permit equal weighting of the 10 items. A score below 20 suggests that the patient has limited social networks.



# Appendix K: Home Safety Checklist

This checklist is used to identify fall hazards in the house. After identification, hazards should be eliminated or reduced. One point is allowed for every “no” answer. A score of 1-7 is excellent, 8-14 is good, 15 or higher is hazardous.

<b>Housekeeping</b>	Yes	No
Do you clean up spills as soon as they occur?	_____	_____
Do you keep the floors and stairways clean and free of clutter?	_____	_____
Do you put away books, magazines, sewing supplies, and other objects as soon as you are through using them?	_____	_____
Do you store frequently used items on shelves and never leave them on the floor or stairways?	_____	_____
<b>Floors</b>		
Do you keep everyone from walking on freshly washed floors before they are dry?	_____	_____
If you wax floors, do you apply two thin coats and buff each thoroughly or else use a self-polishing nonskid wax?	_____	_____
Do all small rugs have nonskid backings?	_____	_____
Have you eliminated small rugs and carpets at the tops and bottoms of stairways?	_____	_____
Are all carpet edges tacked down?	_____	_____
Are rugs and carpets free of curled edges, worn spots, and rips?	_____	_____
Have you chosen rugs and carpets with short, dense pile?	_____	_____
Are rugs and carpets installed over good-quality, medium-thick pads?	_____	_____
<b>Bathroom</b>		
Do you use a rubber mat or nonslip decals on the tub or shower?	_____	_____
Do you have a grab bar securely anchored over the tub or on the shower wall?	_____	_____
Do you have a nonskid rug on the bathroom floor?	_____	_____
Do you keep soap in an easy-to-reach receptacle?	_____	_____
<b>Traffic Lanes</b>		
Can you walk across every room in your house and from one room to another without detouring around furniture?	_____	_____
Is the traffic lane from your bedroom to the bathroom free of obstacles?	_____	_____
Are telephone and appliance cords kept away from areas where people walk?	_____	_____
<b>Lighting</b>		
Do you have light switches near every doorway?	_____	_____
Do you have enough good lighting to eliminate shadowy areas?	_____	_____
Do you have a lamp or light switch within easy reach from your bed?	_____	_____
Do you have nightlights in your bedroom and in the hallway leading from your bedroom to your bathroom?	_____	_____
Are all stairways well lighted?	_____	_____
Do you have light switches at both the top and bottom of stairways?	_____	_____
<b>Stairways</b>		
Do securely fastened handrails extend the full length of the stairs on each side of stairway?	_____	_____
Do rails stand out from the walls so that you can get a good grip?	_____	_____
Are rails distinctly shaped so you are alerted when you reach the end of the stairway?	_____	_____
Are all stairways in good condition with no broken, sagging, or sloping steps?	_____	_____
Are all stairway carpeting and metal edges securely fastened and in good condition?	_____	_____
Have you replaced any single level steps with gradually rising ramps and made sure such steps are well lighted?	_____	_____



<p><b>Ladders and Step Stools</b></p> <p>Do you have a sturdy step stool that you use to reach high cupboard and closet shelves?</p> <p>Are all ladders and step stools in good condition?</p> <p>Do you always use a step stool or ladder that is tall enough for the job?</p> <p>Do you always set up your step stool or ladder in a firm, level base that is free of clutter?</p> <p>Before you climb a ladder or step stool, do you always make sure that it is fully open and that the stepladder spreaders are locked?</p> <p>When you use a ladder or step stool, do you face the steps and keep your body between the side rails?</p> <p>Do you avoid standing on top of a step or climbing beyond the second step from the top of the ladder?</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Outdoor Areas</b></p> <p>Are the walks and driveways in your yard and other areas free of breaks?</p> <p>Are lawns and gardens free of holes?</p> <p>Do you put away garden tools and hoses when they're not in use?</p> <p>Are outdoor areas kept free of rocks, loose boards, and other tripping hazards?</p> <p>Do you keep outdoor walkways, steps, and porches free of wet leaves and snow?</p> <p>Do you sprinkle icy outdoor areas with de-icers as soon as possible after a snowfall?</p> <p>Do you have mats at doorways for people to wipe their feet?</p> <p>Do you know the safest way of walking when you can't avoid walking on a slippery surface?</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Footwear</b></p> <p>Do your shoes have soles and heels that provide good traction?</p> <p>Do you wear house slippers that fit well and don't fall off?</p> <p>Do you avoid walking in stocking feet?</p> <p>Do you wear low-heeled oxfords, loafers, or good-quality sneakers when you work in your house or garden?</p> <p>Do you replace boots or galoshes when their soles or heels are worn too smooth to keep you from slipping on wet or icy surfaces?</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Personal Precautions</b></p> <p>Are you always alert for unexpected hazards, such as out-of-place furniture?</p> <p>If young grandchildren visit, are you alert for children playing on the floor and toys left in your path?</p> <p>If you have pets, are you alert for sudden movements across your path and pets getting underfoot?</p> <p>When you carry bulky packages, do you make sure that they don't obstruct your vision?</p> <p>Do you divide large loads into smaller loads whenever possible?</p> <p>When you reach or bend, do you hold onto a firm support and avoid throwing your head back or turning it too far?</p> <p>Do you always use a ladder or step stool to reach high places and never stand on a chair?</p> <p>Do you always move deliberately and avoid rushing to answer the phone or doorbell?</p> <p>Do you take time to get your balance when you change position from lying down to sitting to standing?</p> <p>Do you hold onto grab bars when you change position in the tub or shower?</p> <p>Do you keep yourself in good condition with moderate exercise, good diet, adequate rest, and regular medical check-ups?</p> <p>If you wear glasses, is your prescription up to date?</p> <p>Do you know how to reduce injury in a fall?</p> <p>If you live alone, do you have daily contact with a friend or neighbor?</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>



## Appendix L: The Spiritual Involvement and Beliefs Scale

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. In the future, science will be able to explain everything.	1	2	3	4	5
2. I can find meaning in times of hardship.	1	2	3	4	5
3. A person can be fulfilled without pursuing an active spiritual life.	1	2	3	4	5
4. I am thankful for all that has happened to me.	1	2	3	4	5
5. Spiritual activities have not helped me become closer to other people.	1	2	3	4	5
6. Some experiences can be understood through one's spiritual beliefs.	1	2	3	4	5
7. A spiritual force influences the events in my life.	1	2	3	4	5
8. My life has a purpose.	1	2	3	4	5
9. Prayers do not really change what happens.	1	2	3	4	5
10. Participating in spiritual activities helps me forgive other people.	1	2	3	4	5
11. My spiritual beliefs continue to evolve.	1	2	3	4	5
12. I believe there is a power greater than myself.	1	2	3	4	5
13. I probably will not reexamine my spiritual beliefs.	1	2	3	4	5
14. My spiritual life fulfills me in ways that material possessions do not.	1	2	3	4	5
15. Spiritual activities have not helped me develop my identity.	1	2	3	4	5
16. Meditation does not help me feel more in touch with my inner spirit.	1	2	3	4	5
17. I have a personal relationship with a power greater than myself.	1	2	3	4	5
18. I have felt pressure to accept spiritual beliefs that I do not agree with.	1	2	3	4	5
19. Spiritual activities help me draw closer to a power greater than myself.	1	2	3	4	5



20. When I wrong someone, I make an effort to apologize.	1	2	3	4	5
21. When I am ashamed of something I have done, I tell someone about it.	1	2	3	4	5
22. I solve my problems without using spiritual resources.	1	2	3	4	5
23. I examine my actions to see whether they reflect my values.	1	2	3	4	5
24. During the last week I prayed (check one)					
<input type="checkbox"/> 10 or more times					
<input type="checkbox"/> 7 times					
<input type="checkbox"/> 4 times					
<input type="checkbox"/> 1-3 times					
<input type="checkbox"/> 0 times					
25. During the last week I meditated (check one)					
<input type="checkbox"/> 10 or more times					
<input type="checkbox"/> 7 times					
<input type="checkbox"/> 4 times					
<input type="checkbox"/> 1-3 times					
<input type="checkbox"/> 0 times					
26. Last month I participated in spiritual activities with at least one other person (check one)					
<input type="checkbox"/> More than 15 times					
<input type="checkbox"/> 11-15 times					
<input type="checkbox"/> 6-10 times					
<input type="checkbox"/> 1-5 times					
<input type="checkbox"/> 0 times					

<sup>31</sup> Hatch RL, et. al. The Spiritual Involvement and Beliefs Scale, Development and Testing of a New Instrument. *The Journal of Family Practice*. 1988;



## Appendix M: Long-Term Care Needs Assessment

- I. 1. Is the patient medically unstable?  
2. Is the patient mentally unstable to the extent of being a danger to himself or herself or others?

**NO** (continue below)

**YES** ➡ ACUTE HOSPITAL

- II. 1. Is the patient totally disoriented chronically?  
2. Is the patient immobile (i.e., always requires human assistance in locomotion)?  
3. Does the patient have need of special therapy (e.g., intravenous line, tracheostomy, oxygen, or ostomy)?  
4. Does the patient require total supervision?  
5. Does the patient require total care to conduct activities of daily living (ADLs)?

**NO** (continue below)

**YES** ➡ SKILLED NURSING FACILITY  
or  
HOME IF SUPPORT AVAILABLE

- III. 1. Does the patient have intermittent disorientation or wandering?  
2. Does the patient fluctuate in ADL ability?  
3. Does the patient require a structured environment—some supervision?  
4. Does the patient require special therapeutics  
(e.g., complex diet, complex medication schedule, close monitoring)?

**NO** (continue below)

**YES** ➡ SKILLED NURSING FACILITY  
or  
HOME IF SUPPORT AVAILABLE

- IV. Can the patient do all of the following?:

- Feed self
- Bathe
- Dress
- Use the toilet without help
- Change position
- Shop
- Plan meals
- Use transportation
- Use telephone
- Handle finances
- Manage medications

**NO** ➡ DOMICILIARY CARE

**YES** ➡ HOME WITH SUPPORT



# Appendix N: Steps for Identifying Patients at Risk/MC3



## Managing Complex Chronic Care (MC3)

### Three Steps to Use MC3 Criteria for Identifying Patients at High Risk for Hospitalization

**STEP 1:** Check yes for presence and no for absence of each of the following MC3 criteria.

Disease Profile		
	No	Yes
Two or more chronic conditions?	<input type="checkbox"/>	<input type="checkbox"/> = 1 point
Diagnosis of Congestive Heart Failure, Chronic Obstructive Pulmonary Disease, Diabetes Mellitus, End Stage Renal Disease, or Cancer?	<input type="checkbox"/>	<input type="checkbox"/> = 2 points
Diagnosis of Dementia or Depression?	<input type="checkbox"/>	<input type="checkbox"/> = 3 points

Treatment Profile		
	No	Yes
Five or more medications?	<input type="checkbox"/>	<input type="checkbox"/> = 1 point
Cannot self-manage medications?	<input type="checkbox"/>	<input type="checkbox"/> = 2 points
Hospital admission or Emergency Room visit within last year?	<input type="checkbox"/>	<input type="checkbox"/> = 3 points

Functional Profile		
	No	Yes
Impairment of 2 or more Independent Activities of Daily Living (shopping, preparing meals, housework, using transportation, using telephone, managing money)?	<input type="checkbox"/>	<input type="checkbox"/> = 1 point
Impairment of 2 or more Activities of Daily Living (eating, bathing, dressing, walking, toileting, or continence)?	<input type="checkbox"/>	<input type="checkbox"/> = 2 points
Inability to access healthcare or lack of support at home?	<input type="checkbox"/>	<input type="checkbox"/> = 3 points

**STEP 2:** Calculate total score by adding checked point values. Total MC3 Score \_\_\_\_\_

**STEP 3:** If Total MC3 Score is 5 or greater, the patient is at high risk for hospitalization.



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