



Arizona Geriatrics Society

An Affiliate of the American Geriatrics Society

EXECUTIVE BOARD

Officers

President: William Arnold, PhD
President Elect: Jan Dougherty, RN, MSN
Secretary-Treasurer: Kathryn Barnoski, APRN, BC
Past President: Mary Ann Zimmerman, MC

Board of Directors

Steven Born, DPM
Janet Champion, MD
Gail Chase, RN, NHA
Mindy Fain, MD
Mary Fermazin, MD
Ilangovan Govindarajan, MD
Carol Long, PhD
Barbara Niesel, RN, MN
Walter J. Nieri, MD, CMD
Gary Salzman, MD
William Weese, MD

Staff

Executive Director: Trudy Kiesewetter
Project Coordinator: Karen Arnold

Journal Editors: Mindy Fain, MD & William Arnold, PhD

Assistant Editors: Denise Howard, RN
Trudy Kiesewetter

Section Editor, Allied Health: Michelle Vuke, RD, CDE

Section Editor, Medical Humanities: Donna Swaim, PhD

Section Editor, Public Health and Policy: M. Jane Mohler, MPH, PhD

CONTENTS

STATE OF THE ART

Inflammatory Bowel Disease in the Elderly Daniel J. Stein, MD and Anmarie Moore, MD	3
Frailty: A New Geriatric Syndrome Nasiya Ahmed, MD and Richard Mandel, MD	6

CLINICAL PRACTICE

Health Care Decisions for Advanced Dementia: Part III Paul F. Harrington, MSW, LCSW, Carol O. Long, PhD, RN, Jill A. Preston, BA, GCM, and Barbara E. Volk-Craft, PhD, MBA, RN	10
Chronic Kidney Disease in the Elderly Pooja Budhiraja, MD, David B. Van Wyck, MD, and Mindy Fain, MD	15

MEDICAL HUMANITIES

The Privilege of Aging Donna Swaim, PhD	18
Remembrance of Alzheimer's Robert Hess, PhD	19
Life of Numbers Rose Do, MD	19

PUBLIC HEALTH & POLICY

Funding Sources for Long Term Care Randal Scott, MSW, MBA	20
---	----

PERSPECTIVES

Cultural Issues Raised by an Aging Asian-American Immigrant Population Nilay Kavathia, MA and Amit Shah, MD	24
---	----

Arizona Geriatrics Society

Published three times per year
(Annual Membership Dues – \$85/Person)

5020 N 8th Place Suite C
Phoenix, Arizona 85014

Phone (602) 265-0211 • Fax (602) 274-8086

www.arizonageriatrics.org

VOLUME 11 NUMBER 1 OCTOBER 2006

We Welcome Letters to the Editor

Letters must be submitted via email or in writing and include information on how to reach the writer. We reserve the right to edit for style, clarity and brevity. Send submission to: Letter to the Editor, Arizona Geriatrics Society, 5020 N 8th Place, Suite C, Phoenix AZ 85014.

The AzGS Journal is a peer-reviewed publication. Those opinions expressed, and findings from research discussed in articles, however, are those of the author(s) and do not necessarily represent the views or positions of the AzGS.

From the Editor:

The Arizona Geriatrics Society Journal, an official publication of the Arizona Geriatrics Society, is committed to publishing quality manuscripts representing scholarly inquiry into all areas of geriatrics. It is published three times a year. We encourage submissions of all research, best practices, reviews of literature, and essays.

Manuscript preparation: Manuscripts should be prepared according to the Publication Manual of the American Psychological Association, Fifth Edition. Three copies and floppy disk version in Microsoft Word should be sent to either editor at the addresses below. You may also email one copy as an attachment. The first page should include the title and a 50-100-word abstract. Manuscripts should not be under consideration for publication elsewhere and are generally limited to 4,000 words.

Review Policy: Manuscripts will be reviewed by at least two members of the review board whose evaluations will provide a basis for the publication decision. We are committed to a rapid review process.

Send submissions to: Mindy Fain, MD
Section Head and Program Director, Geriatrics
Co-Director, Arizona Center on Aging
1821 East Elm Street
Tucson, AZ 85719
mfain@aging.arizona.edu

Geriatric Medicine Across the Continuum of Care

18th Annual Symposium & Exhibition



**Arizona
Geriatrics
Society**
An Affiliate of the
American Geriatrics Society

**Friday and Saturday,
October 20-21, 2006**

**at Black Canyon Conference Center
(9440 N. 25th Avenue - Phoenix)**

**Register online at:
www.arizonageriatrics.org
or call the office at 602-265-0211**

Inflammatory Bowel Disease in the Elderly

Daniel J. Stein, MD, University of Arizona College of Medicine, Department of Internal Medicine, Tucson, Az

Anmarie Moore, MD, University of Arizona College of Medicine, Department of Internal Medicine and the University of Arizona Sarver Heart Center, Tucson, Az

Crohn's Disease (CD) and Ulcerative Colitis (UC) make up what is collectively called Inflammatory Bowel Disease (IBD). At the time of initial diagnosis approximately 12% of UC patients and 16% of CD patients will be older than 60, with a slight female predominance at this age.¹ By most reports, the median age at diagnosis and the incidence of IBD has risen steadily over the 20th century, presumably due to an overall aging population.² Furthermore, the survival and risk of colorectal cancer for IBD patients has improved during the same time suggesting that more of these patients will survive to an older age.^{2,3} This implies that clinicians will be encountering an ever growing number of both newly and previously diagnosed elderly patients with IBD.

An historical example of how Crohn's Disease can be missed in an elderly patient is that of former president Dwight D. Eisenhower. The President suffered from abdominal pain and diarrhea for most of his adult life. He underwent multiple abdominal surgeries, including an appendectomy and cholecystectomy, as well as treatment for amebiasis and peptic ulcer disease all without relief. Not until 1956 was Crohn's Disease finally diagnosed. The diagnosis was made by pathology after emergent surgery for a life threatening small bowel obstruction mandated a terminal ileum stricture resection.⁴ The case of President Eisenhower illustrates how IBD may be overlooked or misdiagnosed in the elderly population.

Although the President's difficulties occurred 50 years ago, more recent studies show that clinicians still struggle to diagnose IBD in the elderly. In particular, the diagnosis of Crohn's disease has been found to be delayed in this population.^{5,6,7} As many as 60% of older patients with CD compared to only 15% of younger patients are misdiagnosed at the time of presentation.⁵ Although the effects of a delay in diagnosis remain unclear, it stands to reason that this delay likely adds to an already decreased quality of life for IBD patients.^{8,9} This article will explore two of the possible causes behind the delay and misdiagnosis of these patients - the first, a different clinical presentation and the second, a broader differential diagnosis in this age group.

In addition to a delayed diagnosis, another problem in this population concerns chronic IBD patients who accumulate multiple related and unrelated co-morbidities as they age. Patients with long standing IBD are at elevated risk of osteoporosis and colorectal cancer, in addition to an increased morbidity and mortality. The last part of the article will explore the management of these issues as IBD patients age with their disease.

Several problems were encountered during the review of this topic. While there are a large number of studies examining IBD in general, there is paucity of studies directly comparing the aged population to the young. Also the exact definition of "elderly" or "aged" varies from study to study, so whenever possible the age definition will be stated. However, elderly

and aged appear to be defined as older than 60 or 65 years of age in most studies. Discussion of diagnostic criteria and treatment strategies are beyond the scope of this article.

Epidemiology

The overall prevalence of UC and CD in the US and Northern Europe is 100 and 50 cases per 100,000, respectively.¹⁰ The annual incidence approaches 10.4 and 5.6 patients per 100,000 persons for UC and CD, correspondingly.² Although some recent studies dispute the claim, IBD was traditionally thought to have a bimodal age of onset,^{11,12} with a first peak in the third decade followed by a second peak between ages 50 and 80.¹¹ It has been proposed that the two peaks represent two distinct disease entities; however, similar clinical presentations, disease behaviors and responses to treatment make this unlikely.¹⁰

Clinical Presentation

One possible cause of the diagnostic delay in elderly IBD patients may stem from an unusual clinical presentation. Attempts to compare the clinical presentations of IBD between the young and elderly populations have found subtle variations in disease characteristics. Although not supported by all studies, Crohn's Disease tends to be confined to the colon more often in patients presenting after age 60.^{13,14,15,16} One study suggested that approximately 60 percent of patients older than age 60 will present with Crohn's colitis compared to those younger than age 60, of whom only 25 percent present with colitis limited disease.¹⁰ At the time of presentation, elderly CD patients have similar complaints compared to their younger counterparts, with similar rates of diarrhea and weight loss.¹⁰ Nonetheless, subtle differences such as increased bleeding rates and less abdominal pain or cramping have been found.^{5,7,11} One suggested mechanism behind the difference in abdominal pain rates may be decreased abdominal sensation from either medications or co-morbidities such as diabetic neuropathy.¹⁰ Lastly, older CD patients are less likely to have a family history of CD.^{7,10,15}

The elderly patient with UC tends to present with more weight loss and diarrhea, but less abdominal pain and rectal bleeding than the younger UC patient.¹⁷ Also, similar to CD, UC tends to be a more limited disease in the aged. One study found disease confined to the left side of the colon in 76% of elderly patients versus only 53% of young patients.¹⁸ Not only was the overall incidence of pan-colitis found to be less common in the elderly, but the incidence of proctitis was more common.¹⁸ Despite the limited disease, some feel that the initial attack of UC may be more severe in the elderly.^{11,13,18} At the time of presentation, elderly UC patients have an increased likelihood of hospitalization, need for high dose steroids, and short-term mortality.^{13,18,19,20} The increased short-term morbidity and mortality is thought to arise from underlying co-morbidities and slightly increased propensity to develop toxic megacolon in the elderly patient.¹²

Inflammatory Bowel Disease in the Elderly

The incidence of extra-intestinal manifestations in both UC and CD appear to be similar in both populations with only slight variations in some studies.(Table 1)^{5,7,21} Elderly UC patients may have more liver test abnormalities, more anemia, and more hypoalbuminemia at presentation.¹⁸ Nonetheless, overall rates of anemia, leukocytosis, elevated liver enzymes, hypoalbuminemia, and elevated erythrocyte sedimentation rates do not appear to differ greatly between young and old IBD.¹⁰

Table 1. List of the extra-intestinal manifestations of IBD.

Dermatologic	Rheumatologic
Erythema nodosum (CD) Pyoderma gangrenosum(UC) Sweet's syndrome Psoriasis	Peripheral arthritis Ankylosing spondylitis Sacroiliitis
Ocular	Cardiopulmonary
Conjunctivitis Anterior uveitis/iritis Epididymitis	Endocarditis Myocarditis/Pleuropericarditis Interstitial lung disease
Hepatic	Other
Hepatic steatosis Primary sclerosing cholangitis	Calcium oxalate nephrolithiasis Thromboembolic disease Osteoporosis

The Differential Diagnosis

It appears that the diagnostic delay of IBD in the elderly does not stem from a grossly atypical presentation; rather something else must be confusing the clinical picture. Another possibility is that this delay emerges from an extensive list of "IBD imitators" in the elderly population not common to younger patients (Table 2). Aged patients describing diarrhea, abdominal pain, weight loss and/or rectal bleeding present a broad and potentially lethal diagnostic spectrum. In addition, the aged patient may have IBD and an overlapping condition that masks the underlying IBD.

Arguably the most serious IBD imitator is ischemic colitis, which may be secondary to peripheral vascular disease, vasculitis or embolic phenomenon. Patients at risk for ischemic colitis include those with congestive heart failure, arrhythmias, atherosclerosis, embolic disease, vasculitis and diabetes.¹¹ Ischemic colitis tends to present acutely with abdominal pain and bloody diarrhea. Usually, it resolves quickly with conservative management; however, close observation of these patients is warranted as they have the potential to progress to infarction and perforation.

Diverticular disease in the elderly, although common and mostly asymptomatic, can progress to potentially life threatening diverticulitis. Complications include local abscess and fistula formation, as well as obstruction if not cared for properly. Diverticulosis may lead to serious bleeding; however this is usually distinct from the bleeding that occurs in IBD.

Microscopic colitis includes collagenous colitis and lymphocytic colitis, which have a mean age of onset at 53 and 64 years of age, respectively. This pairing is termed

microscopic because of normal appearing mucosa at time of endoscopy, but random biopsies reveal either a thickened collagen deposition beneath the epithelium or a lymphocytic infiltrate. Notably, microscopic colitis, in contrast to IBD, does not cause significant bleeding nor does it carry an increased risk of cancer. Although not extensively studied, both conditions respond to 5-aminosalicylate products and bismuth subsalicylate.¹¹

Infectious causes of diarrhea are numerous and have the potential to become life threatening, particularly in those patients with significant co-morbidities. Standard stool cultures as well as ova and parasite exams should be performed to rule out *Shigella*, *Salmonella*, *Campylobacter* and parasitic infections. The laboratory should be alerted if *Yersinia enterocolitica* or *E.coli* O157:H7 infections are suspected as these require special culture media. In addition, the possibility of pseudomembranous colitis should not be overlooked, particularly in patients with recent antibiotic use or those undergoing chemotherapy. *Clostridium difficile* colitis may occur as late as six weeks after antibiotic use.

Celiac Disease, a disease often only considered in the young, is thought to be under recognized in the elderly.²² Elderly patients tend to have more diarrhea, weight loss, anemia, and abdominal pain at time of presentation of Celiac Disease than their younger counterparts. One study found the average delay in diagnosis to be 17 years in patients over 65 years of age.²³ If Celiac Disease is suspected, antigliadin, antiendomysial, and/or anti-tissue transglutaminase antibodies as well as an upper endoscopy with small bowel biopsies should be pursued. Different from IBD, celiac patients tend to have profuse watery non-bloody diarrhea with upper abdominal cramping and bloating.

Several other diagnoses can be eliminated by history alone, such as medication and radiation induced colitis. Commonly used medications known to cause colitis include non-steroidal anti-inflammatory drugs, allopurinol, estrogens, and digitalis. Other conditions include intestinal lymphoma, ileo-cecal carcinoma, and intestinal tuberculosis which can be seen at the time of colonoscopy. (Table 2)

Issues in Patients Aging with IBD

Osteoporosis presents a significant problem in the IBD populations who have aged with their disease, particularly in those persons who have been exposed to corticosteroids. However, IBD patients were found to have a greater risk of spine and hip fracture regardless of corticosteroid exposure. Accelerated bone resorption as well as decreased

Table 2. List of IBD "Imitators"

Infectious	Inflammatory	Medication	Other
Salmonella Shigella Campylobacter Yersinia Clostridium difficile Escherichia coli O157:H7 Amebic	Diverticular/segmental colitis Diverticulitis Microscopic Colitis ➤ Collagenous ➤ Lymphocytic Celiac Disease Radiation Enterocolitis	NSAIDs Gold Pencicillamine Sulfasalazine 5-Flucytosine Methyldopa Ticlopidine Estrogens Digitalis Allopurinol Laxatives	Lymphoma Vasculitis Amyloidosis Ileo-cecal carcinoma Carcinoid tumors

Inflammatory Bowel Disease in the Elderly

mineralization that occur in these patients is thought to be caused by chronically elevated systemic inflammatory cytokines.^{24,25,26} Other factors placing IBD patients at higher risk for osteoporosis include malnutrition, vitamin D and calcium malabsorption, hypogonadism, and disease activity.²⁷ Overall, total corticosteroid exposure and disease activity serve as independent variables increasing the risk of fracture in IBD patients.^{27,24} Although a few studies disagree with the above fracture risk, it is generally accepted that IBD patients should be supplemented with calcium, vitamin D and bisphosphonates when corticosteroids are initiated.^{24,28,29} Despite these recommendations, one study found only 13% of IBD patients that had already sustained a fracture were started on optimal bone sparing therapy.²⁷ This shows that diagnosis and treatment of osteoporosis in IBD patients needs to be more aggressively pursued and managed.³⁰

The risk for colorectal cancer is directly proportional to the extent and duration of UC; therefore, colorectal cancer screening is a significant issue for those aging with the disease.² Cancer screening in UC with colonoscopy and random biopsies for dysplasia is recommended at every 1-2 years and is likely to improve survival.³¹ However, because colon cancer incidence increases with age in the general population, older UC patients have an only a slightly higher risk of cancer than that of age-matched controls.³²

Overall mortality from IBD, while decreasing over the 20th century, appears to be approximately twice that of the general population.^{2,9,33} However, one study found IBD-related mortality to be greatest in relative terms in younger patients and greatest in absolute terms in the elderly. One example is an 80-year-old patient who has only a doubled relative but a 5.6% absolute increased mortality per year compared to an aged-matched control. Conversely, a 20-year-old has a 5 times relative and only a 0.1% absolute increased mortality.³²

Conclusion

Inflammatory bowel disease in the elderly will continue to present more frequently as the overall population ages and as these patients live longer. Delays in diagnosis appear to be related to a more complex differential diagnosis in the elderly population rather than to an unusual presentation. Careful and expeditious work up of these patients will hopefully minimize this delay in the future.

As these patients age, careful screening and risk factor management must be undertaken to avoid complications from osteoporosis and colon cancer. All patients should be screened for osteoporosis and prescribed bone-sparing therapy as appropriate. Successful management of these patients during the initial diagnosis and over the long term will hopefully lead to an improved mortality and quality of life.

References:

1. Grimm IS, Friedman LS. Inflammatory bowel disease in the elderly. *Gastroenterol Clin North Am.* 1990 Jun;19(2):361-89.
2. Binder V. Epidemiology of IBD during the twentieth century: an integrated view. *Best Pract Res Clin Gastroenterol.* 2004 Jun;18(3):463-79.
3. Loftus EV Jr. Mortality in inflammatory bowel disease: peril and promise. *Gastroenterology.* 2003 Dec;125(6):1881-3.
4. Gilbert, Robert. *The Mortal Presidency.* "Pain and Duty: Dwight D. Eisenhower." New York: BasicBooks, 1992.
5. Harper PC, McAuliffe TL, Beeken WL. Crohn's disease in the elderly. A statistical comparison with younger patients matched for sex and duration of disease. *Arch Intern Med.* 1986 Apr;146(4):753-5.

6. Foxworthy DM, Wilson JA. Crohn's disease in the elderly. Prolonged delay in diagnosis. *J Am Geriatr Soc.* 1985 Jul;33(7):492-5.
7. Wagtmans MJ, Verspaget HW, Lamers CB, van Hogezaand RA. Crohn's disease in the elderly: a comparison with young adults. *J Clin Gastroenterol.* 1998 Sep;27(2):129-33.
8. Rubin GP, Hungin AP, Chinn DJ, Dwarakanath D. Quality of life in patients with established inflammatory bowel disease: a UK general practice survey. *Aliment Pharmacol Ther.* 2004 Mar 1;19(5):529-35.
9. Irvine EJ. Quality of life issues in patients with inflammatory bowel disease. *Am J Gastroenterol.* 1997 Dec;92(12 Suppl):18S-24S.
10. Ratnaik RN. *Diarrhoea and Constipation in Geriatric Practice.*; Cambridge, U.K. ; New York : Cambridge University Press, 1999
11. Robertson DJ, Grimm IS. Inflammatory bowel disease in the elderly. *Gastroenterol Clin North Am.* 2001 Jun;30(2):409-26.
12. Russel MG, Stockbrugger RW. Epidemiology of inflammatory bowel disease: an update. *Scand J Gastroenterol.* 1996 May;31(5):417-27.
13. Softley A, Myren J, Clamp SE, Bouchier IA, Watkinson G, de Dombal FT. Inflammatory bowel disease in the elderly patient. *Scand J Gastroenterol Suppl.* 1988;144:27-30.
14. Page MJ, Poritz LS, Kunselman SJ, Koltun WA. Factors affecting surgical risk in elderly patients with inflammatory bowel disease. *J Gastrointest Surg.* 2002 Jul-Aug;6(4):606-13.
15. Polito JM 2nd, Childs B, Mellits ED, Tokayer AZ, Harris ML, Bayless TM. Crohn's disease: influence of age at diagnosis on site and clinical type of disease. *Gastroenterology.* 1996 Sep;111(3):580-6.
16. Stalnikowicz R, Eliakim R, Diab R, Rachmilewitz D. Crohn's disease in the elderly. *J Clin Gastroenterol.* 1989 Aug;11(4):411-5.
17. Greenwald DA, Brandt LJ. Inflammatory Bowel Disease After Age 60. *Curr Treat Options Gastroenterol.* 2003 Jun;6(3):213-225.
18. Zimmerman J, Gavish D, Rachmilewitz D. Early and late onset ulcerative colitis: distinct clinical features. *J Clin Gastroenterol.* 1985 Dec;7(6):492-8.
19. Winther KV, Jess T, Langholz E, Munkholm P, Binder V. Survival and cause-specific mortality in ulcerative colitis: follow-up of a population-based cohort in Copenhagen County. *Gastroenterology.* 2003 Dec;125(6):1576-82.
20. Jones HW, Hoare AM. Does ulcerative colitis behave differently in the elderly? *Age Ageing.* 1988 Nov;17(6):410-4.
21. Lakatos L, Pandur T, David G, Balogh Z, Kuronya P, Tollas A, Lakatos PL. Association of extraintestinal manifestations of inflammatory bowel disease in a province of western Hungary with disease phenotype: results of a 25-year follow-up study. *World J Gastroenterol.* 2003 Oct;9(10):2300-7.
22. Holt PR. Gastrointestinal diseases in the elderly. *Curr Opin Clin Nutr Metab Care.* 2003 Jan;6(1):41-8.
23. Gasbarrini G, Cicciocioppo R, De Vitis I, Corazza GR; Club del Tenue Study Group. Coeliac Disease in the Elderly. A multicentre Italian study. *Gerontology.* 2001 Nov-Dec;47(6):306-10.
24. Katz JA. Treatment of inflammatory bowel disease with corticosteroids. *Gastroenterol Clin North Am.* 2004 Jun;33(2):171-89, vii.
25. Fleischer DE, Grimm IS, Friedman LS. Inflammatory bowel disease in older patients. *Med Clin North Am.* 1994 Nov;78(6):1303-19.
26. Uno JK, Kolek OI, Hines ER, Xu H, Timmermann BN, Kiela PR, Ghishan FK. The role of tumor necrosis factor alpha in down-regulation of osteoblast PheX gene expression in experimental murine colitis. *Gastroenterology.* 2006 Aug;131(2):497-509.
27. Van Staa TP, Cooper C, Brusse LS, Leufkens H, Javaid MK, Arden NK. Inflammatory bowel disease and the risk of fracture. *Gastroenterology.* 2003 Dec;125(6):1591-7.
28. Loftus EV Jr, Achenbach SJ, Sandborn WJ, Tremaine WJ, Oberg AL, Melton LJ 3rd. Risk of fracture in ulcerative colitis: a population-based study from Olmsted County, Minnesota. *Clin Gastroenterol Hepatol.* 2003 Nov;1(6):465-73.
29. Loftus EV Jr, Crowson CS, Sandborn WJ, Tremaine WJ, O'Fallon WM, Melton LJ 3rd. Long-term fracture risk in patients with Crohn's disease: a population-based study in Olmsted County, Minnesota. *Gastroenterology.* 2002 Aug;123(2):468-75.
30. Valentine JF, Sninsky CA. Prevention and treatment of osteoporosis in patients with inflammatory bowel disease. *Am J Gastroenterol.* 1999 Apr;94(4):878-83.
31. Hata K, Watanabe T, Kazama S, Suzuki K, Shinozaki M, Yokoyama T, Matsuda K, Muto T, Nagawa H. Earlier surveillance colonoscopy program improves survival in patients with ulcerative colitis associated colorectal cancer: results of a 23-year surveillance program in the Japanese population. *Br J Cancer.* 2003 Oct 6;89(7):1232-6.
32. Lewis JD, Deren JJ, Lichtenstein GR. Cancer risk in patients with inflammatory bowel disease. *Gastroenterol Clin North Am.* 1999 Jun;28(2):459-77.
33. Card T, West J, Hubbard R, Logan RF. Hip fractures in patients with inflammatory bowel disease and their relationship to corticosteroid use: a population based cohort study. *Gut.* 2004 Feb;53(2):251-5.

Frailty: A New Geriatric Syndrome

Nasiya Ahmed, MD, Geriatric Fellow, Department of Internal Medicine, University of Arizona College of Medicine

Richard Mandel, MD, Section of Infectious Disease, Department of Internal Medicine, University of Arizona College of Medicine

Frailty, from the Latin word *fragilis*, is defined as the quality or state of being physically weak. There is currently a new interest developing in geriatric medicine directed towards understanding why certain elderly individuals become frail as they age, whereas others do not. Is frailty the result of the normal aging process or is it the result of chronic medical conditions? Perhaps it is a genetic syndrome that is only becoming evident as people live longer? Others may argue that it is not even a syndrome, but simply de-conditioning and poor health. And yet, research shows frail individuals may have inflammatory and neuro-endocrine changes as well. The purpose of this article is to review the definition, epidemiology, pathophysiology, and treatment of frailty, as well as examine potential areas of research.

What Is Frailty?

Frailty is described as having decreased reserves in multiple organ systems. It may be initiated by disease, immobility, inadequate nutrition, and/or the physiological changes of aging. Frailty develops in a step-wise process, with increments of decline precipitated by acute events. It is manifested as a decrease in skeletal muscle mass (sarcopenia), abnormal function in inflammatory and neuro-endocrine systems, and poor energy regulation. In the frail elderly, there is *homeostenosis*, or a decreased ability in the body's physiological response to maintain homeostasis in times of acute stress. In essence, frailty is a product of "excess demand imposed upon reduced capacity".¹

Frailty can be seen as both a primary and a secondary diagnosis. One study demonstrated that 7% of the frail elderly have no co-morbid illness, and 25% have only one co-morbid diagnosis.² On the other hand, frailty may occur as a result of an acute event or the end stage of a number of conditions and chronic illnesses, including atherosclerosis, infection, malignancy, and depression.³

Frailty has also been described as a continuum. The initial stages of frailty, in which patients demonstrate some, but not all, of the characteristics diagnostic of frailty, is the "pre-frail" stage. Studies show that elderly persons in the pre-frail stage are likely to develop the full

syndrome.⁴ The pre-frail elderly are also at a slightly increased risk of falls, institutionalization, and mortality, but this risk is not as high as in their frail counterparts.⁵

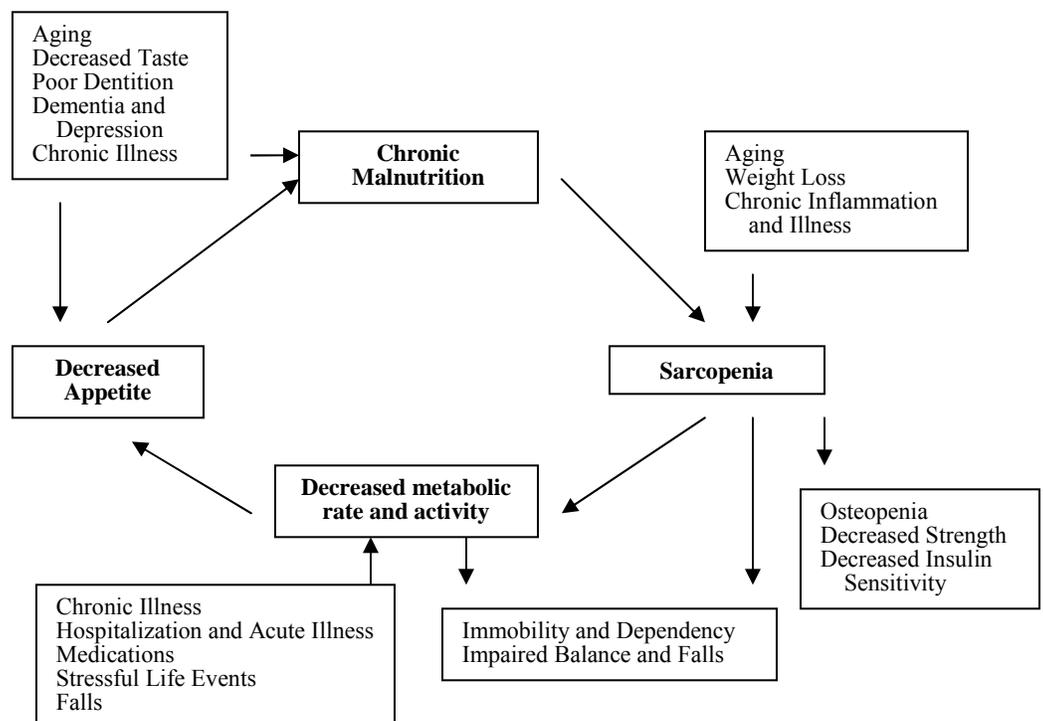
The end stage of the frailty continuum is failure to thrive.⁶ Elderly patients, with or without co-morbidity, eventually reach an irreversible stage of functional decline, progressive apathy, and decreased appetite that ultimately ends in death.⁷

A more recent study expanding on the concept of frailty further defines frailty as both a static and a dynamic condition. Dynamic frailty is defined as a decline in frailty markers over a three-year-period, either with or without an actual diagnosis of frailty. Dynamic frailty, even when adjusted for age, education, disability, chronic disease, and presence of static frailty markers, was still associated with an increased risk of mortality⁸; this increase was greater in women than in men.

How Do You Diagnose Frailty?

The definition and diagnosis of frailty has taken time to evolve. Initial studies showed a decrease in strength and balance to be predictors of frailty.^{9,10} However, in the elderly, multiple etiologies can lead to such a state. Inflammation and multiple co-morbidities were also thought to lead to frailty. Based on this, a "cycle of frailty" was hypothesized. Figure 1 helps conceptualize the etiology and phenotype of frailty and highlights the interdependence of various factors that may pull patients into this cycle.

Figure 1.



Frailty: A New Geriatric Syndrome

More recently, Fried and others conducted a detailed study analyzing multiple demographic, medical, and laboratory factors to statistically determine a definition of frailty.¹¹ Frailty was defined as a condition involving at least three of the following five characteristics:

- 1) decreased walk time, as defined by a 15 foot walk test;
- 2) decreased grip strength, measured by a dynamometer;
- 3) decreased physical activity, measured by the MLTA (The Minnesota Leisure Time Activity Questionnaire)¹²;
- 4) exhaustion, measured by the CES-D (Center for Epidemiologic Studies Depression Scale); and
- 5) greater than 10lbs or 5% of weight loss in the last one year.

While Fried's definition of frailty has been most widely accepted by textbooks and researchers, other indices and definitions of frailty have also been published.^{13,14}

What Is Not Frailty?

Not all that appears to be frailty is frailty. The differential diagnosis of frailty includes congestive heart failure, polymyalgia rheumatica, Parkinson's disease, rheumatoid arthritis, occult malignancy and infection. A new onset or an exacerbation of any of these diseases could present as frailty; however, all of these illnesses are treatable and should be excluded prior to making a diagnosis of frailty.

Frailty can be easily confused with disability as well; however, researchers have sought to differentiate the two. Disability, defined as the inability to perform ADLs, IADLs, or difficulty with mobility, does not affect the body across multiple organ systems.¹⁵ Among the frail elderly, only 60% have difficulty completing their IADL's, and 27% have difficulty completing ADL's. Furthermore, the same study reported that of all the disabled participants, only 28% met the criteria for frailty.¹⁶

Significance

Why is frailty important? The incidence of frailty increases with age, and the most rapidly growing segment of our population are the elderly. One study showed that 3% of elderly aged 65-75 were frail. This percentage increased to 26% in those older than 85.¹⁷ A separate study calculated 32% of people aged 90 and over were frail.¹⁸ Another study calculated the three-year incidence of frailty to be 7%.¹⁹ In a similar study done in the Hispanic population, the seven-year incidence for frailty was 7.9%.²⁰ After adjusting for age, race, sex, smoking, and co-morbid illness, frail patients had a 1.2 to 2.5 fold increase in their risk for falls, decreased mobility, worsening ADL's, and institutionalization. This same study showed that the risk of death in the frail cohort was 2.5 times greater during the course of the three-year period.²¹ A separate, cross-sectional observational study reported that frail patients had a significantly increased risk of cardiovascular disease, hypertension, and cancer; the frail patients in this study also had increased mortality (odds ratio of 1.70), even

Table 1.

Criteria Used to Define Frailty				
<i>You must have 3 of the following 5 criteria to be frail</i>				
	Male		Female	
Weight Loss	Greater than 10lbs or 5% of weight loss in the last year			
15-Foot Walk Time	Height \leq 173cm	\geq 7seconds	Height \leq 159cm	\geq 7seconds
	Height >173cm	\geq 6seconds	Height >159cm	\geq 6seconds
Grip Strength	BMI \leq 24	\leq 29	BMI \leq 23	\leq 17
	BMI 24.1-26	\leq 30	BMI 23.1-26	\leq 17.3
	BMI 26.1-28	\leq 30	BMI 26.1-29	\leq 18
	BMI >28	\leq 32	BMI >29	\leq 21
Physical Activity (MLTA)	<383 kcal/wk		<270 kcal/wk	
Exhaustion	A score of 2 or 3 on the CES-D*			

* How often in the last week did you feel this way?

I felt that everything I did was an effort

I could not get going

0 = 1 day 1 = 1-2 days 2 = 3-4 days 3 = more than 4 days

after adjusting for chronic conditions.²² Frail patients take a high toll on caregiver burden and increase health care costs; as the elderly population continues to grow, the impact of frailty will be felt throughout families and our economic, healthcare, and social systems.

Treatment

At this time, there is limited treatment available for frailty. The initial treatment should be optimal treatment of all medical illnesses that may lead to frailty. The second step is to prevent sarcopenia and decrease inflammation through muscle strengthening exercises, including stretching, resistance training, and tai chi. Multiple studies have shown improvement in frailty markers with exercise; however, it is not known whether exercise improves morbidity and mortality in the frail population.

Nutritional research conducted in the general elderly population has shown little benefit in improving their health status. Increased caloric intake has some benefit when combined with an exercise program, increasing exercise expenditures by 1000kcal/week.²³ The appetite stimulants megestrol acetate and dronabinol have shown minimal benefits in improving health status in geriatric nursing home patients; moreover, these drugs are also associated with significant side effects.²⁴ Replacement of testosterone and DHEA, hormones that play an important role in maintaining muscle strength, showed no benefit.²⁵ Growth hormone replacement has also failed to produce any positive effects in frail elderly, but short-term treatment may improve malnutrition and functional status.²⁶

Lastly, a study done with frail elderly showed that a positive attitude prevented both the physical and mental decline of frailty.²⁷

Other Frailty Research

Although not part of the official definition, research has shown selected demographic markers associated with frailty, including female sex, African-American race, older persons, lower education level, lower incomes, and those with chronic illnesses or disability.²⁸

Frailty: A New Geriatric Syndrome

Walston and et al have also evaluated the inflammatory and neuro-endocrine changes in frailty in the Cardiovascular Health Study Cohort. When excluding patients with diabetes or cardiovascular disease, frail patients had an odds ratio 2 to 3 times that of their non-frail counterparts for displaying increased CRP (c-reactive protein) and fibrinogen. CRP also increases levels of circulating IL-6; elevated IL-6 levels in frail patients was confirmed in another small pilot study.²⁹

Glucose intolerance was also noted; both fasting/post-prandial glucose and insulin levels were slightly elevated in frail patients (odds ratio 1.5 to 2.6). Glucose intolerance is often associated with sarcopenia. Recent research also has shown that both hyperinsulinemia and hypertriglyceridemia may result in appetite suppression and decreased nutritional intake.³⁰

Serum levels of IGF-1 and DHEA were significantly lower in frail patients as well.³¹ DHEA, a weak androgenic steroid that is a precursor of testosterone and estrogen, may play a role in maintaining muscle mass and perhaps suppressing inflammation. IGF-1, which stimulates growth hormone release and regulates cell growth and development, is often decreased in both diabetes and malnutrition.³²

There has been some research in the clinical realm as well. Chronic illnesses associated with frailty include cardiovascular disease, pulmonary disease, arthritis, and diabetes; cancer was not listed because it was an exclusion criteria for this particular study. Cognitive limitations and depression were also more prevalent in the frail group of patients, despite the exclusion of patients being treated with antidepressants or having an MMSE < 18.^{33,34}

Elderly patients with cardiovascular disease have a higher prevalence of frailty. This has been confirmed by data from the Cardiovascular Health Study, which showed that cardiovascular disease, most importantly CHF (odds ratio 7.5), was associated with an increased likelihood of frailty.³⁵ In elderly patients with no history of CVD, the extent of subclinical cardiovascular disease, as measured by carotid ultrasound, ankle-brachial index, and LV hypertrophy, was also linked to frailty.³⁶

Anemia is increased in frail patients as well; researchers have noted a direct correlation between decreased hemoglobin and increased frailty.^{37,38} Furthermore, anemia in the frail population has been linked to elevation of IL-6.³⁹ Patients with chronic renal insufficiency, even after adjustments for other co-morbidities, also have a higher risk of frailty.⁴⁰

Another emerging area of research is the effects of frailty and inflammation on treatment of infectious diseases.⁴¹ Chronic CMV infection has also been associated with frailty; however, further prospective studies are needed to establish a causal relationship.⁴²

Dermatology research has shown that the frail elderly have more difficulty in the healing of punch biopsies in comparison with their non-frail counterparts. As mentioned above, obesity carries a high risk of frailty as well.^{43,44}

Prior to the formulation of Fried's definition, researchers using varying definitions of frailty noted other demographic trends as well as inflammatory and neuro-endocrine markers in patients who appeared to have the frailty syndrome. Not all of these markers have been validated using Fried's definition of frailty.

Conclusion

Frailty has only recently been defined and much more research needs to be done before we are truly able to understand it in its entirety. What causes frailty in the elderly? While many studies have shown associations between the incidence of frailty and the factors that are thought to lead to the condition, most have not clearly established causal relationships. Why do some factors that trigger frailty in some individuals, but not in others? The underlying pathophysiology of primary frailty needs to be delineated as well as the contributions of other co-morbid diagnoses to the clinical pictures of frailty. Perhaps there is also a genetic component that makes some elderly more prone to frailty. Lastly, the effect of frailty on the body's other organ systems should be elucidated.⁴⁵ These are just the beginnings of frailty research; as more information is discovered, many more avenues will open up for researchers and clinicians to explore and address the needs of frail and pre-frail patients as well as methods of treatment.

References:

1. Powell, C. "Frailty: Help or Hindrance". *Journal of the Royal Society of Medicine*. 1997; 90:23-26
2. Fried, Linda, et al. "Frailty". In: Cassel c, Leipzig R, Cohen H, Larson E, Meier D, eds. *Geriatric Medicine: An Evidence-Based Approach*. 4th edition. New York: Springer-Verlag; 2003, 1067-1074
3. Wilson, Jennifer Fisher. "Frailty-and Its Dangerous Effects-Might Be Preventable". *Annals of Internal Medicine*. September 2004; 141:489-492
4. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156
5. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156
6. Fried, Linda, et al. "Frailty". In: Cassel c, Leipzig R, Cohen H, Larson E, Meier D, eds. *Geriatric Medicine: An Evidence-Based Approach*. 4th edition. New York: Springer-Verlag; 2003, 1067-1074
7. Robertson, Russel G. "Geriatric Failure to Thrive". *American Family Physician*. July 2004; 70:343-350
8. Puts, Martine T.E., et al. "Sex Differences in the Risk of Frailty for Mortality Independent of Disability and Chronic Diseases". *Journal of the American Geriatric Society*. January 2005; 53:40-47
9. Dayhoff, NE, et al. "Balance and Muscle Strength as Predictors of Frailty in Older Adults". *Journal of Gerontological Nursing*. July 1998; 24(7):18-27.
10. Carriere, I, et al. "Hierarchical Components of Physical Frailty Predicted Incidence of Dependency in a Cohort of Elderly Women". *Journal of Clinical Epidemiology*. November 2005; 58(11): 1180-1187.
11. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156
12. Taylor, HL, et al. "A Questionnaire for the Assessment of Leisure Time Physical Activities". *Journal of Chronic Disease*. 1978; 31:741-55
13. Rockwood, Kenneth. "What Would make a Definition of Frailty Successful?". *Age and Ageing*. September 2005; 34(5):432-4
14. Jones, KM, et al. "Operationalizing a Frailty Index from a Standardized Comprehensive Geriatric Assessment". *Journal of the American Geriatrics Society*. November 2004; 52(11):1929-33
15. Fried, Linda P, et al. "Untangling the Concepts of Disability, Frailty, and Co-morbidity: Implications for Improved Targeting and Care". *Journals of Gerontology Series A: Biological Sciences and Medical Sciences*. March 2004; 59(3):255-263
16. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156
17. Fried, Linda, et al. "Frailty". In: Cassel c, Leipzig R, Cohen H, Larson E, Meier D, eds. *Geriatric Medicine: An Evidence-Based Approach*. 4th edition. New York: Springer-Verlag; 2003, 1067-1074
18. Walston, J, et al. "Frailty and Activation of the Inflammation and Coagulation Systems With and Without Clinical Co-morbidities: Results from the Cardiovascular Health Study". *November 2002; 162(20):2333-42*
19. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156
20. Gill, Thomas, et al. "Transitions Between Frailty States Among Community-Living Older Persons". *Archives of Internal Medicine*. February 2006; 166:418-23
21. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156

Frailty: A New Geriatric Syndrome

22. Klein, BE, et al. "Frailty, Morbidity, and Survival". *Archives of Gerontology and Geriatrics*. September 2005; 41(2):141-149
23. Fried, Linda, et al. "Frailty". In: Cassel c, Leipzig R, Cohen H, Larson E, Meier D, eds. *Geriatric Medicine: An Evidence-Based Approach*. 4th edition. New York: Springer-Verlag; 2003, 1067-1074
24. Robertson, Russel, et al. "Geriatric Failure to Thrive". *American Family Physician*. July 2004; 70(2):343-50
25. Morley, John, et al. "Frailty and Hormones". *Reviews in Endocrine and Metabolic Disorders*. 2005; 6:101-8
26. Morley, John et al. "Frailty and Hormones". *Reviews in Endocrine and Metabolic Disorders*. 2005; 6:101-8
27. Ostir, GV, et al. "Onset of Frailty in Older Adults and the Protective Role of Positive Affect". *Psychology and Aging*. September 2004; 19(3):402-8
28. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156
29. Leng, S, et al. "Serum Interleukin-6 and Hemoglobin as Physiological Correlates in the Geriatric Syndrome of Frailty: A Pilot Study". *Journal of the American Geriatric Society*. July 2002; 50(7):1268-1271
30. Morley, John et al. "Frailty and Hormones". *Reviews in Endocrine and Metabolic Disorders*. 2005; 6:101-8
31. Leng, S, et al. "Serum Levels of IGF-1 and DHEA-S and Their Relationship with IL-6 in the Geriatric Syndrome of Frailty". *Aging Clinical and Experimental Research*. April 2004; 16(2):153-7
32. Walston, J, et al. "Frailty and Activation of the Inflammation and Coagulation Systems With and Without Clinical Co-morbidities: Results from the Cardiovascular Health Study". *Archives of Internal Medicine*. November 2002; 162(20):2333-42
33. Fried, Linda P. "Frailty in Older Adults: Evidence for a Phenotype". *Journal of Gerontology*. 2001; 56A:M146-156
34. Katz, IR. "Depression and frailty: the need for multidisciplinary research.". *American Journal of Geriatric Psychiatry*. January 2004; 12(1):1-6
35. Morly, John, et al. "Editorial: Something About Frailty". *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*. 2002; 57:M698-704
36. Newman, AB, et al. "Associations of Subclinical Cardiovascular Disease with Frailty". *The Journals of Gerontology. Series A. Biological Sciences and Medical Sciences*. March 2001; 56(3): M158-66
37. Leng, S, et al. "Serum Interleukin-6 and Hemoglobin as Physiological Correlates in the Geriatric Syndrome of Frailty: A Pilot Study". *Journal of the American Geriatric Society*. July 2002; 50(7):1268-1271
38. Chaves, PH, et al. "Impact of anemia and cardiovascular disease on frailty status of community-dwelling older women: the Women's Health and Aging Studies I and II". *The Journals of Gerontology. Series A. Biological Sciences and Medical Sciences*. June 2005; 60(6):729-735
39. Ershler, WB. *Biological Interactions of Aging and Anemia: A Focus on Cytokines*". *Journal of the American Geriatrics Society*. March 2003; 51:S18-21
40. Shlipak, MG, et al. "The Presence of Frailty in Elderly Persons with Chronic Renal Insufficiency". *American Journal of Kidney Diseases*. May 2004; 43(5):861-7
41. High, Kevin P, et al. "A New Paradigm for Clinical Investigation of Infectious Syndromes in Older Adults: Assessment of Functional Status as a Risk Factor and Outcome Measure". *Aging and Infectious Diseases*. January 2005; 40:114-22
42. Schmalts, HN, et al. "Chronic Cytomegalovirus Infection and Inflammation are Associated with Prevalent Frailty in Community Dwelling Older Women". *Journal of the American Geriatrics Society*. May 2005; 53(5):747-54
43. Villareal, DT, et al. "Effect of Weight Loss and Exercise on Frailty in Obese Older Adults". *Archives of Internal Med*. April 2006; 166(8):860-6.
44. Blaum, CS, et al. "The Association Between Obesity and the Frailty Syndrome in Older Women: The Women's Health and Aging Studies". *Journal of the American Geriatrics Society*. June 2005; 53(6):927-34
45. Walston, Jeremy, et al. "Research Agenda for Frailty in Older Adults: Toward a Better Understanding of Physiology and Etiology: Summary from the American Geriatrics Society National Institute on Aging Research Conference on Frailty in Older Adults". *Journal of the American Geriatrics Society*. June 2006;

**CARE CORNER
HALF PAGE AD**

Health Care Decisions for Advanced Dementia: Part III of III

Jill A. Preston, BA, GCM, Jackson White Attorneys at Law, Elder Services Liaison

Barbara E. Volk-Craft, PhD, MBA, RN, Hospice of the Valley, Program Development Director

Paul F. Harrington, MSW, LCSW, Hospice of the Valley, Dementia Outreach Coordinator

Carol O. Long, PhD, RN, Alzheimer's Association Desert Southwest Chapter, Healthcare Consultant

Respecting autonomy in health care decision-making is a fundamental ethical principle that should guide health care delivery. This series of articles is meant to encourage the realization of this principle by offering tools for health care providers to promote and pursue this basic goal for individuals with advanced dementia. The first article in this three-part series described common health care decisions persons with advanced dementia may face and introduced principles for making those decisions (Harrington, Volk-Craft, Preston & Long, 2005a). The second part identified issues related to advance decision-making when individuals with dementia retain the ability to express their wishes and when substitute decision-making is necessary (Harrington, Volk-Craft, Preston & Long, 2005b). This final article focuses on the person with advanced dementia who has lost the ability to make healthcare decisions and how the health care community can assist these individuals specifically through the issues of incapacity, guardianship, and alternatives to guardianship.

When Capacity is Limited or Unclear: Incapacity

The common theme reiterated throughout this series has been that it is best to make health care decisions before one loses the ability to do so. This planning includes the identification of an agent to act on one's behalf in the event of incapacity. Unfortunately, this preparation does not always occur. It is usually at the time that a health care decision needs to be made that the questions arise, "Who will make the needed decision? Can he make it himself? Has a Health Care Power of Attorney been completed? Can a willing surrogate be easily identified?" When these questions arise the health care professional must seek out an agent or surrogate. What happens if no one is found? In determining whether a person has capacity, the question to ask would be, "Is the person able to understand and tell us what he wants?" Determining capacity for persons with advanced dementia often proves to be a challenge for the family and for health care professionals.

Principles for Determining Capacity

What is capacity? In the legal context, the meaning of capacity varies according to the scope of decision that is to be made. Essentially, capacity means that a person understands the nature and effect of his/her act. To appoint an agent to make his medical decisions, a person must understand that he is naming someone to make those decisions for him (Powers of attorney; best interest; intimidation; deception; definitions, n.d.) He must also understand that an agent will be able to determine health care decisions for him when he cannot make them for

himself. If he understands those things, then he has the capacity to create a Health Care Power of Attorney. A diagnosis of dementia alone does not necessarily mean that the person lacks capacity. Arizona law recognizes that there may be moments of lucidity (*Golleher v. Horton*, 1985) in which a person may demonstrate capacity. For instance, a person with dementia may be more confused in the evenings and, therefore, unable to make certain decisions at that time. However, the same person may be clear enough another time of the day to execute a particular document, as long as the person reasonably understands the nature and effect of executing that document.

Decisional capacity, or in health care terms an "informed consent," means that the person can understand his health condition. This means that the person can consider the benefits, burdens, and risks of care options, can weigh the consequences of treatment against his preferences and values, can reach a decision that is consistent over time, and can communicate that decision to others (Seal, 2004). This is not the same as the burden as to name an agent. The difference between informed consent and simply naming an agent to act on one's behalf is often a confusing issue for healthcare professionals. To complete a health care power of attorney, a person must understand the nature and effect of assigning an individual to serve as agent under a power of attorney and that the agent assigned will have the authority to make health care decisions in the event that decisional capacity is lost.

A person's ability to understand concepts may vary. For example, it may be possible to understand a health care issue but not a complicated financial matter. Different levels of capacity are required for executing a Health Care Power of Attorney than a Financial Power of Attorney because the person must be able to understand the specifics of each document. In both situations, however, the individual must understand the nature and effect of designating an agent(s) (American Geriatrics Society Ethics Committee, 1998).

Ethical considerations generally accompany the legal components of health care decisions. These considerations are often based on varying circumstances and add complexity to the process. For example, does the person want to designate an agent or are family members trying to force the issue? Are family members trying to ignore the capacity issues? Would any of the family members have reason to be concerned if an investigation were conducted into the matter? A combination of factors must be evaluated to determine a person's capacity. As each person's situation is different, the questions needing to be evaluated also differ. Looking at the person's total situation, medical, personal, financial and psycho-social, is imperative.

Health Care Decisions for Advanced Dementia: Part III of III

If the person with advanced dementia is regularly unable to make responsible personal decisions, then the person probably does not have the capacity to create a Health Care Power of Attorney or other legal documents. In that event, a statutory surrogate or a court-appointed guardian would need to make the necessary decisions on the person's behalf.

Completing the documents

Planning ahead is the key to avoiding these types of dilemmas. Preferably a Health Care Power of Attorney will be prepared before capacity is lost. However, if capacity is unclear, consider following:

- Does the person understand, even if only for the moment, that he/she is agreeing to appoint another person to be able to make health decisions for him/her?
- Do family dynamics exist that would raise concerns about someone's motives for 'pushing' the creation of a Health Care Power of Attorney?
- Are any family members avoiding the capacity issue?
- Has a physician been involved in determining capacity?

If a person is not able to execute a Health Care Power of Attorney, the health care professional will need to defer to the statutory surrogate or a court-appointed guardian. Detailed information on the surrogacy laws can be found in article II in this series (Harrington, Volk-Craft, Preston & Long 2005b).

Many factors affect capacity. The timing of the approach, the manner in which the person is approached, and changing environmental circumstances can all have an on affect capacity. Table 1 offers helpful hints for the family/surrogates as well as helpful hints for facility administration/staff that will assist in the success of naming an agent.

In the health care setting, encouraging the discussion regarding the completion of advance directives **before** capacity is lost is crucial in honoring a person's choices. Identifying the responsible staff person to lead this initiative and the identification of the facility process is a proactive approach to assure that all people have their advance directives followed, particularly those who have dementia.

Table 1

Helpful Hints to facilitate the preparation of a Power of Attorney Document	
Helpful Hints for Family	<ul style="list-style-type: none"> • Remember that time and patience is very important. A person might not be able to make a decision when it is convenient for you. Rather re-approach the person during a different time of day, or during a less stressful time. The issue of capacity is determined the moment in which the documents are being executed, not later that evening or another day. • Establishing trust with the person also proves helpful in this process. The timeline that the person is on may not be your timeline in which you want to complete these documents, go back another time and try again. • Many factors can contribute to capacity. Increased stress, whether mind, body, or environmental, can also make a person's dementia worsen. Medical problems, such as a urinary tract infection or a cold, can aggravate the situation. If there are other factors affecting the person's capacity, resolve these issues and try again.

Helpful Hints for Facility Admin./ Staff	<ul style="list-style-type: none"> • Document efforts, limitations, and why proceeding with the surrogate laws is needed. • Do not be afraid to try repeatedly to find that moment of capacity for the person. • Keep documentation of the Health Care Power of Attorney attempts in the medical record, the decision to use the statutory surrogate laws, or the need to find someone to act as a surrogate. • Have a procedure in place for the cases that the person has no capacity, no Health Care Power of Attorney, and no surrogate, or the surrogate is not willing or able to carry out their responsibilities. See Table 3.
--	--

- Encourage the person with advanced dementia to participate in the treatment plan discussions. Much can be learned from listening to the person and paying attention to the expressed wishes.
- Documenting all advance directive care discussions and options is recommended. If the person has been approached to sign a Health Care Power of Attorney, document why it was or was not successful so that the next course of action can be followed.
- If capacity is in question, involve the family, the physician, and those who work closely with the person to get feedback. This may require long distance or conference calls and ample time to gather information. Patience and documentation of conversations regarding advance directives are crucial in this effort.

Case Study

Mr. Stanley is in a nursing facility dementia unit. He has lost the ability to care for himself, although he still communicates issues to each of his daughters. On some days, he recognizes both of them. The daughters could act as surrogates but, due to a conflict with each other, they are not comfortable acting without some legal authority. Both daughters want the father to be taken care of; however, they have different ideas of what the care would include. If the surrogacy laws are to be applied, the daughters must reach a consensus in their decision for the course of treatment. However, if the father could name one daughter as the agent under a Health Care Power of Attorney, the issue of responsibility is resolved. If the facility staff approaches Mr. Stanley during a time that he can communicate his preferences, is able to name one of the daughters as his agent, and is willing to sign the documents, then the directive would be valid and would avoid any misunderstanding between daughters. This does not mean that this process is easily done, rather that it is worth the effort to try.

Principles for Dealing with the Person Who has Lost Capacity and Has No Health Care Power of Attorney or Surrogate

When a person with dementia has lost capacity and has no one with legal authority (whether surrogate or court-appointed) to make health care decisions, other options need to be explored. These individuals are vulnerable, as they have no one to speak on their behalf. This group of individuals has been termed the "Un-befriended Elderly" by the American Bar Association. It is estimated that

Health Care Decisions for Advanced Dementia: Part III of III

approximately 3-4% of all nursing home censuses may fall into this category (Karp & Wood, 2003). Each health care provider must determine how to handle these types of situations. What can be done to assist these persons, ethically, and with ease, so that the facility and staff can provide appropriate care, and so that the rights of the individual are not compromised? Two approaches exist:

1. Utilizing the legal system to appoint a guardian,
2. Finding alternatives to guardianship.

Guardianship

A guardian is an individual appointed by the court to make personal decisions, placement, and medical decisions for someone who is incapacitated. The incapacitated person is called the “ward” (Protection of Person Under Disability, Definitions, n.d.; White, McDonald & Seal, 2004). A guardian has powers similar to those of a parent for a child, although the guardian is not required to provide financial support for the ward. A guardian makes decisions about the ward’s living arrangements and medical care (General Powers and Duties of Guardian, n.d.). A guardian may need to be appointed for a person who does not have enough understanding or capacity to make or communicate responsible personal decisions.

The guardianship process can be lengthy and costly. The court is petitioned for the appointment of a guardian. The court then schedules a hearing on the incapacity of the proposed ward. An attorney is appointed to represent the proposed ward. A court investigator is assigned to interview family members, and/or friends, and to make a report to the court. A physician’s report regarding capacity issues is also necessary. At the hearing, the judge or commissioner hears testimony, considers the report of the physician, and decides whether or not to appoint a guardian (Seal, 2004).

Generally, it takes about six to eight weeks for a guardianship hearing to be held. If the situation is an emergency, a petition for the temporary appointment of a guardian can also be filed. A hearing on the temporary appointment can be held within approximately three to ten working days. Although an attorney is usually involved, due to the complexity of the issues, there are self-service centers at the various superior court buildings in Maricopa County to assist families with this process. Forms and instructions for guardianship also can be found at www.superiorcourt.maricopa.gov. These forms can be adapted for use in other Arizona counties.

The guardianship and conservatorship process can be complicated. Guardianship is protection for the person/ward. Conservatorship is protection for the ward’s finances. It is recommended that family members consult with an experienced and qualified attorney to evaluate their situation. The family should bring important documents, such as powers of attorney, trusts, or wills to the legal appointment for the attorney to review. The family should also bring documents identifying or describing their loved one’s assets. The attorney can evaluate the information and provide guidance as to the appropriate steps to be taken. If a guardianship or conservatorship is necessary, the attorney can prepare the documents and initiate the appropriate court proceedings.

The health care facility should identify which individuals are without an agent/surrogate before the health care need arises. Who are the *un-befriended elderly* in your facility?

There still may be time to find a willing surrogate or name an agent. Waiting too long to begin this process may limit options. There may be other ways to handle the health care decisions without a costly guardianship/conservatorship action. If guardianship is needed, the facility should have a list of qualified Elder Law attorneys available to use as referrals.

Case Study

Mrs. Lincoln has advanced dementia and is in a skilled nursing center. She is married and has no children and no other family in the area. She no longer has capacity to make medical or financial decisions. Her husband has been acting as her agent under her Health Care Power of Attorney. She had not named a secondary agent. Unexpectedly, Mr. Lincoln has a heart attack and passes away. Who is going to act on behalf of Mrs. Lincoln? Since there is no family member or close friend to act in her best interest, and since there is no one now to handle her financial affairs for her, the nursing facility must call upon other resources available to them to petition the court to get a guardian and conservator appointed. This process could have been avoided if a secondary agent had been named prior to Mrs. Lincoln’s loss of capacity.

Alternatives to Guardianship

Having an agent named in a Health Care Power of Attorney is really the best way to avoid guardianship. The utilization of an identified statutory surrogate is the next alternative. Having a plan in place to facilitate the identification those who do not have an agent assigned and with no known surrogate offers the potential of finding a ‘voice’ for the person before a need occurs.

Arizona sets a high standard in its unique programs that are available to assist our most vulnerable of seniors. One such resource is the *Alternative to Guardianship* program administered through the Area Agency on Aging (AAA), Region One. The goal of this program is to facilitate and expedite treatment and compassionate care in the final stages of life. The program also is designed to assist vulnerable seniors who have not adequately planned for their health care or financial directives to have this same outcome. The program in Maricopa County is a resource to health care providers. The facility that practices guardianship alternatives has the opportunity to promote care consistent with the person’s wishes while getting this accomplished in a cost effective manner. This is done by using advance directives, location of surrogates and other methods regardless of the disease process. The worksheet, *The Identification of the Surrogate*, can be found in Table 2. Note that this Worksheet refers to the term “patient”, which is consistent with the Arizona Revised Statutes Title 36 Public Health and Safety, in lieu of the term “person”, which has been used throughout this document.

The facility’s creation of a health care directive procedure is crucial to the success of naming a health care agent/surrogate proactively, as often admission to a long term care setting is the point at which the need for surrogate becomes realized. Facilities are encouraged to increase their use of community resources and ask for consultations to resolve issues and plan for all possible health care situations. The assignment of a qualified staff member to coordinate the alternative to guardianship effort keeps these tasks well

Table 2

<p>Identifying the Surrogate Decision-Maker</p> <p>By Dawn Savatone, MSW, LCSW Coordinator of ElderGap and an Ombudsman Specialist Area Agency on Aging, Region One</p> <p>Arizona Revised Statute 36-3231 allows for health care professionals to contact family, friends, or physicians to make health care decisions for incapacitated adults who have not documented prior advance directives. The health care decision law is intended to fulfill the incapacitated patient's desires, as determined by the appropriate surrogate decision-maker, taking into account the patient's personal values known to the surrogate. If the patient has not made his or her wishes known, health care decisions are to be made in the patient's best interest.</p> <p>The health care surrogate statute allows for health care decisions to be made without having to resort to judicial proceedings, except as a last resort. Unfortunately, for some adults with dementia their ability to communicate with health care professionals about family, friends or others close to them diminishes over time. Possible surrogates, who were identified while hospitalized, are often omitted from health care records that follow patients from one facility to another, because authorized priority health care surrogates decision-making powers are limited to each treatment decision. Key contacts and other valuable information are often lost forever.</p> <p>The Identification of Surrogate worksheet can be used as a tool to assist professionals to recognize and record family members, friends, and others close to the patient, whom are willing and available by priority to make health care decisions when needed. This worksheet should become a permanent part of the patient's records. Patients with dementia are often victims of over treatment, as well as, under treatment when a surrogate cannot be identified quickly. Health care decisions made by families, friends, and others close to the patient can help to better reflect their values and over all well being. Valuable surrogate information can help those with a progressive disease from becoming vulnerable to the health care system.</p> <p style="text-align: center;">See example of Surrogate worksheet on page 14</p>

defined. Often these issues are difficult for families to discuss. It is vital to provide a welcoming and professional environment for discussion. It is recommended that the health care facility develop a procedure that incorporates a step-by-step plan approved to identify possible decision makers (See Table 3).

Table 3

<p>Sample Facility Plan to Identify Decision Makers</p> <ol style="list-style-type: none"> 1. Identify specific person in the facility to be in charge of this effort and act as investigator of surrogate(s). 2. Identify the un-befriended elder before possible issues arise. 3. Review persons ability to execute a Health Care Power of Attorney 4. Document expressed wishes. 5. Take proper steps to find a surrogate. Evaluate surrogacy possibility and document on the <i>Identification of Surrogate Worksheet</i>. 6. If no surrogate can be found, look at alternative options. Include outside resources to assist with plan. 7. Evaluate the financial options for legal guardianship process. 8. Call the local Area Agency on Aging (AAA) for further assistance. In Maricopa County, the <i>Alternatives to Guardianship</i> program through the AAA can offer assistance
--

Case Study

Consider the same case study as before with Mr. and Mrs. Lincoln, but now instead of no children, let us assume that they have a child out of state. This child was not listed as a secondary agent under the power of attorney. The facility used the Identification of Surrogate Worksheet to investigate whether or not this child wanted to be involved and asked her to act as surrogate. After the facility investigation, the child consented to act as medical surrogate, but she did not want to be involved in financial matters. As there is now a surrogate for medical decisions, but not financial, this eliminated the need for the appointment of a guardian. Mrs. Lincoln's financial affairs still need to be managed, hence the daughter needed to hire an Elder Law attorney to petition the court for a conservator, thus, getting all surrogate decision-makers in place.

It is a detailed process to determine the appropriate agent, whether a healthcare power of attorney, statutory surrogate or guardian. The process is never the same but the need for inquiry and investigation of appropriate surrogate remains. The burden to complete this process lies within the health care community.

The collaborating authors of this manuscript encourage all who are able to complete their advance directives. In addition, we seek to assist in the understanding of how to facilitate this decision-making process if started during medical difficulties and/or with the loss of capacity, to ensure health care directives are completed and followed. Although it is agreed that the respect for the autonomous decision-making is a fundamental ethical principle that should consistently guide health care delivery, there is much to be done to make this a reality.

References:

American Geriatrics Society Ethics Committee. (1998). Making treatment decisions for incapacitated elderly patients without advance directives [Monograph]. *American Geriatrics Society Position Statement*. Retrieved March 27, 2005, from <http://www.americangeriatrics.org/products/positionpapers/treatdecPF.shtml>

General Powers and Duties of Guardian, ARS 14-5312 (A) and (8)(9), (n.d.) Golleher v. Horton, 148 ARS 14-5506 (App. 1985).

Harrington, P. F., Volk-Craft, B. E., Preston, J. A., & Long, C. O. (2005a). Health Care Decisions for Advanced Dementia: Part I. *Arizona Geriatrics Society Journal*, 10 (2), 3-7.

Harrington, P. F., Volk-Craft, B. E., Preston, J. A., & Long, C. O. (2005b). Health Care Decisions for Advanced Dementia: Part 2. *Arizona Geriatrics Society Journal*, 10(3), 14-19.

Karp, N., & Wood, E. (2003). *Incapacitated and alone: Health care decision-making for the un-befriended elderly*. American Bar Association Commission on Law and Aging. Washington, DC: American Bar Association.

Living Wills and Health Care Directives, ARS 36-3231 (1992). Powers of attorney; best interest; intimidation; deception; definitions ARS 14-5506 (F)(2) (n.d.)

Protection of Person Under Disability, Definitions, ARS 14-5101 (n.d.)

Seal, M. K. (2004). *Arizona Consumers Guide to Guardianship and Conservatorship*. Mesa, AZ: JacksonWhite Law Firm, P.C.

White, R. A., Macdonald, E. K., & Seal, M. K. (2004). *Alzheimer's and the Law*. Mesa, AZ: JacksonWhite Law Firm, PC.

Health Care Decisions for Advanced Dementia: Part III of III

IDENTIFICATION OF SURROGATE WORKSHEET	
PATIENT'S NAME: _____	DOB: _____
Directions: This form is used to specify the type of surrogate who will make health care decisions for the above patient when s/he is unable to do so. The person responsible for locating a surrogate decision-maker shall contact the following individual(s) in the indicated order of priority below who are available and willing to serve as a surrogate per ARS 36-3231. Documentation of contacts/results may be noted on this form and/or in the patient's chart.	
<u>SELECT ONE:</u>	
APPOINTED SURROGATE(S): A person authorized to make health care decisions on behalf of the patient.	
___	Guardian appointed for the express purpose of making health care treatment decisions (place copy in medical record)
___	Agent under health care power of attorney (place copy in medical record)
IF NEITHER IS AVAILABLE, make reasonable efforts to contact and verify that the person(s) is unwilling or unable to serve as surrogate decision maker before moving to the next in priority:	
___	1. The patient's spouse (unless the patient and spouse are legally separated) _____
___	2. An adult child of the patient (if the patient has more than one adult child, the health provider shall seek the consent of a majority of adult children who are reasonably available for consultation) – list all children serving as surrogates below _____
___	3. A parent of the patient _____
___	4. If the patient is unmarried, the patient's domestic partner (if no other person has assumed any financial responsibility for the patient) _____
___	5. A brother or sister of patient _____
___	6. A close friend of patient (an adult who has exhibited special care and concern for the patient, who is familiar with the patient's health care views and desires and who is willing and able to become involved in the patient's health care and to act in the patient's best interest) _____
IF NONE OF THE ABOVE CAN BE LOCATED;	
___	Attending physician
	a. after the physician consults with and obtains the recommendations of an institutional ethics committee OR IF THIS IS NOT POSSIBLE
	b. after consulting with a second physician who concurs with the physician's decision
NOTES: _____	

IDENTIFIED SURROGATE(S) – please include name, relationship to patient, address, and phone number(s), and relationship to patient for each identified surrogate: _____	
PERSON COMPLETING FORM: _____ DATE: _____	
TITLE: _____ HEALTH PROVIDER/FACILITY: _____	

Jill A. Preston, BA, GCM (Corresponding Author)
Elder Services Liaison
JacksonWhite Elder Law Services
40 N. Center St. #200
Mesa, AZ 85201
Work 480-464-1111
Fax 480-467-4257
jpreston@jacksonwhitelaw.com

Barbara E. Volk-Craft, PhD, MBA, RN
Program Development Director
Hospice of the Valley
1510 E. Flower St.
Phoenix, AZ 85014
Work 602-287-7053
Fax 602-636-2232
bvolkcraft@hov.org

Paul F. Harrington, MSW, LCSW
Dementia Outreach Coordinator
Hospice of the Valley
1510 E. Flower St.
Phoenix, AZ 85014
Work 602-636-6353
Fax 602-636-2232
pharrington@hov.org

Carol O. Long, PhD, RN
Healthcare Consultant
Alzheimer's Association Desert Southwest Chapter
1028 E. McDowell Rd.
Phoenix, AZ 85006
Work 602-528-0545
Fax 602-528-0546
carolong@cox.net

This original manuscript, "Health Care Decisions for Advanced Dementia" Guidelines and Standards, was modified to account for this 3-part series. It is reprinted with permission from the Alzheimer's Association, Desert Southwest Chapter, as part of the Palliative Care for Advanced Dementia project, funded by the Nina Mason Pulliam Charitable Trust. The authors wish to acknowledge the efforts of the Program Standards Work Group of the Advanced Dementia Care project for support of this work.

Chronic Kidney Disease in the Elderly

Pooja Budhiraja, MD, Department of Internal Medicine, University of Arizona

David B Van Wyck, MD, Professor of Medicine and Surgery, Section of Geriatrics, University of Arizona College of Medicine

Mindy J Fain, MD, Section Head, Geriatrics, University of Arizona College of Medicine

Abstract:

Chronic kidney disease (CKD) is a global epidemic in elderly. Despite its association with diverse pathophysiologic consequences and complications in virtually all organ systems, CKD is a highly under-recognized and under-treated disease. Growing prevalence of CKD in elderly, along with lack of physician cognizance has resulted in exponential growth of end stage renal disease (ESRD) in this population, which is linked to increased incidence of cardiovascular disease, hospitalizations and economic burden. The Kidney Disease Outcome Quality Initiative Guidelines (KDOQI) guidelines provide an opportunity for physicians to use specific preventive and therapeutic plan to identify the disease and its complications, and slow the progression, thereby improving the quality and quantity of life in the elderly.

Chronic Kidney disease (CKD) is defined as kidney damage in form of structural or functional abnormalities, or estimated glomerular filtration rate (GFR) <60 mL/min/1.73 m² for 3 or more months, irrespective of the cause.¹ GFR of less than 15 mL/min/1.73 m² is considered end-stage renal disease (ESRD).¹ A glomerular filtration rate (GFR) below 60 mL/min/1.73 m² represents a loss of more than half the normal kidney function. CKD, irrespective of the etiology, is commonly accompanied by systematic metabolic disturbances, multiple co-morbidities, diverse complications including increased cardiovascular events²⁻⁵, decreased quality of life, and worse survival.^{6,7} Despite the multiple ramifications, CKD in elderly remains highly unrecognized, and its complications often untreated, due to the silent nature of the disease in early stages and also, possibly because of ignorance about the disease among physicians.⁸

Incidence and Prevalence of CKD and ESRD in Elderly

CKD is major health problem worldwide, especially among the elderly. GFR decreases with age. Among persons 60-69 years of age, 7% have an estimated GFR of less than 60 mL/minute/ 1.73 m², and it increases to 26% in adult population 70 years of age or older.⁹

Older patients are steadily growing in number and surviving longer. Prevalence rates for ESRD continue to be the highest for the ages 65-74.¹⁰ The prevalence of ESRD has nearly doubled in the patients age 75 and above over the past ten years as incidence rates for ESRD in this population continues to climb, and this trend is expected to continue.¹⁰ The median age for renal replacement therapy has risen to 64.8 years, and patients age 75 and older account for the largest proportion of the incident population, at 26%.¹⁰

Decreased Kidney Function and Age

The decline in GFR with age may be multifactorial. The collective exposure to common offenders of kidney function (e.g. atherosclerosis, hypertension, heart failure, diabetes, obstructive nephropathy and prostatic disease, nephrotoxins), along with ageing process may constitute possible etiologies for decrease in GFR with age.^{11,12}

Glomerular function can be preserved by protecting the kidney from various insults and by controlling diabetes, hypertension and by treating proteinuria.^{1,13} Unfortunately, CKD often goes unnoticed in its earliest, most treatable

stages.¹⁴ Evidence-based clinical practice guidelines, Kidney Disease Outcome Quality Initiative Guidelines (KDOQI), have been developed that provide specific recommendations about diagnosis, monitoring and management of all stages of chronic kidney disease and its related complications.

Importance of Recognition of CKD in Elderly

Due to the present population dynamics and climbing incidence of CKD, the health care system is experiencing an epidemic of CKD in elderly. Timely identification is required to prevent the progression of CKD to ESRD requiring renal replacement therapy. Efforts aimed at slowing the progression of CKD will help in preventing decline of functional status, hospitalizations and the disproportionate health care spend on management of ESRD in this population.¹⁵ Earlier stages of CKD can be easily identified through laboratory testing, providing an opportunity to intervene and prevent the progression of the disease.^{1,13}

Decreased GFR is a major independent risk factor for cardiovascular disease, and cardiovascular events are the major cause of death in CKD population.^{3,5} Accelerated atherosclerosis,¹⁶ increased inflammation,¹⁷ left ventricular hypertrophy,¹⁸ vascular calcification,^{19,20} hypertension,¹¹ and fluid overload are some of the mechanisms which contribute to increased cardiovascular mortality in these patients. In almost two-thirds of Medicare patients age 65 and older with CKD, there is accompanying diabetes, congestive heart failure or both diseases combined.²¹ Microalbuminuria, a common feature of CKD, is itself an independent risk factor for cardiovascular disease.²²

CKD also contributes to altered pharmacokinetics of diverse medications. It is, thus, also important to recognize decreased GFR so as to prevent drug toxicities in elderly high diseases burden population, who frequently are subject to polypharmacy.²³

Other complications including malnutrition, anemia, and disorders of bone and mineral metabolism²⁴ that set in early stages of CKD, are under recognized and are associated with increased morbidity and mortality when detected late.^{11,25,26,27} Late referral to nephrologists also contributes to significant comorbidity, vascular access problems and increased mortality in this age group.^{28,29}

Estimating Kidney Function in Elderly

Chronic Kidney Disease in the Elderly

Use of serum creatinine to estimate kidney function in elderly may significantly underestimate the severity of CKD. A severely impaired renal function may be present despite normal creatinine.³⁰ Serum creatinine may fail to rise in the setting of decreased muscle mass with age.

The glomerular filtration rate, calculated by using a Modification of Diet in Renal Disease (MDRD) equation, may represent a better means for estimating kidney function and assessing the severity of the disease. It is superior to serum creatinine alone by virtue of including age, sex, and race in the equation:³¹

$$\text{eGFR [MDRD]} = 170 \times [\text{SCR}]^{-0.999} \times [\text{Age}]^{-0.176} \times [0.762 \text{ if patient is female}] \times [1.18 \text{ if patient is black}] \times [\text{BUN}]^{0.170} \times [\text{Alb}]^{0.318}$$

The measurement of GFR using inulin clearance has been suggested to be a gold standard, but is cumbersome and impractical for regular use, and so is the use of radioisotopic methods.^{32,33} The 24-hour creatinine clearance, another method for renal function estimation, requires a timed urine collection, and is not used commonly due to associated inaccuracies with collection and dependence on creatinine excretion.¹

Cystatin C is a new marker that has been used to evaluate kidney function in some studies and seems to more useful as a prognostic biomarker for estimating the cardiovascular events associated with CKD.³⁴ Cystatin C may be better indicator of kidney function in elderly than serum creatinine, as it is not affected by muscle mass, age or sex.³⁵ However, the drawbacks for this marker include the cost, lack of standardization, limited availability, and most importantly, that the levels may be altered by smoking, steroids and inflammation.³⁶

In conclusion, glomerular filtration rate calculated by using a MDRD equation, despite the limitations of diet and body habitus, is far more precise than serum creatinine. It is arguably the most useful tool currently available for estimating kidney function and disease staging. KDOQI recommends routine laboratory reporting of eGFR along with serum creatinine.

Kidney Disease Outcome Quality Initiative Guidelines (KDOQI)

As age is one of the major risk factors for CKD, National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (KDOQI) recommend measuring glomerular filtration rate and screening for albuminuria in all patients older than 60 years. When chronic kidney disease is detected, it should be classified according to the stage, and action plan for each stage as suggested by the guidelines should be followed. The goal should be early detection and management of CKD and associated conditions. Efforts to identify and treat the specific underlying conditions, associated complications such as hypertension, anemia, hyperparathyroidism, malnutrition, and other co-morbid conditions should be taken. Attempt should be made at retarding disease progression by optimizing diabetes and hypertension control and slowing proteinuria. Review of medications for dose adjustments according the GFR should be performed to avoid adverse drug effects. Importance of the timely referral to nephrologist and preparation for kidney replacement therapy cannot be overstated.^{1,27,37}

Conclusion

CKD is common affliction of elderly. As population becomes older, the primary care providers and nephrologists will need to be more cognizant of the widespread occurrence of this condition in geriatric population. An under-recognition of CKD, and failure to treat it adequately even when recognized, probably due to therapeutic nihilism in providers, have increased the incidence of ESRD and contributed to disproportionate economic and cardiovascular burden of CKD. If impact has to be made on the growing epidemic of CKD, physician knowledge and understanding of chronic kidney disorders in elderly needs to be intensified. Under-recognition of CKD may partly be related to over-reliance on serum creatinine level in elderly. An automated GFR reporting by laboratories may assist in timely detection of CKD. Compliance with KDOQ1 guidelines may result in more effective management for patients with CKD

Further information regarding the evaluation and management of Chronic Kidney Disease in the elderly can be obtained at the website: <http://www.kidney.org/professionals/kdoqi/index.cfm> (accessed September 27, 2006)

References:

- 1 K/DOQI clinical practice guidelines for chronic kidney disease: evaluation, classification, and stratification. *Am J Kidney Dis* 2002, 39,S1-266
- 2 Stevens LA, Levey AS. Chronic kidney disease in the elderly--how to assess risk. *N Engl J Med* 2005, 352,2122-2124
- 3 Go AS, Chertow GM, Fan D, et al. Chronic kidney disease and the risks of death, cardiovascular events, and hospitalization. *N Engl J Med* 2004, 351,1296-1305
- 4 Manjunath G, Tighiouart H, Coresh J, et al. Level of kidney function as a risk factor for cardiovascular outcomes in the elderly. *Kidney Int* 2003, 63,1121-1129
- 5 Foley RN, Murray AM, Li S, et al. Chronic kidney disease and the risk for cardiovascular disease, renal replacement, and death in the United States Medicare population, 1998 to 1999. *J Am Soc Nephrol* 2005, 16,489-495
- 6 Shlipak MG, Fried LF, Stehman-Breen C, et al. Chronic renal insufficiency and cardiovascular events in the elderly: findings from the Cardiovascular Health Study. *Am J Geriatr Cardiol* 2004, 13,81-90
- 7 Patel UD, Young EW, Ojo AO, et al. CKD progression and mortality among older patients with diabetes. *Am J Kidney Dis* 2005, 46,406-414
- 8 Martin A, Mellotte G, O'Neill D. Chronic kidney disease in the elderly; a silent epidemic. *Ir Med J* 2005, 98,46-47
- 9 Coresh J, Astor BC, Greene T, et al. Prevalence of chronic kidney disease and decreased kidney function in the adult US population: Third National Health and Nutrition Examination Survey. *Am J Kidney Dis* 2003, 41,1-12
- 10 U.S. Renal Data System, USRDS 2005 Annual Data Report: Atlas of End-Stage Renal Disease in the United States. Incidence and Prevalence. *Am J Kidney Dis* 2006, 47,s65-s80
- 11 Aronow WS. Drug therapy of older persons with hypertension. *J Am Med Dir Assoc* 2006, 7,193-196
- 12 Lamb EJ, O'Riordan SE, Delaney MP. Kidney function in older people: pathology, assessment and management. *Clin Chim Acta* 2003, 334,25-40
- 13 Peterson JC, Adler S, Burkart JM, et al. Blood pressure control, proteinuria, and the progression of renal disease. The Modification of Diet in Renal Disease Study. *Ann Intern Med* 1995, 123,754-762
- 14 Nickolas TL, Frisch GD, Opatowsky AR, et al. Awareness of kidney disease in the US population: findings from the National Health and Nutrition Examination Survey (NHANES) 1999 to 2000. *Am J Kidney Dis* 2004, 44,185-197
- 15 U.S. Renal Data System, USRDS 2005 Annual Data Report: Atlas of End-Stage Renal Disease in the United States. Costs of CKD and ESRD. *Am J Kidney Dis* 2006, 47,s199-s214
- 16 Manjunath G, Tighiouart H, Ibrahim H, et al. Level of kidney function as a risk factor for atherosclerotic cardiovascular outcomes in the community. *J Am Coll Cardiol* 2003, 41,47-55

Chronic Kidney Disease in the Elderly

- 17 Shlipak MG, Fried LF, Crump C, et al. Elevations of inflammatory and procoagulant biomarkers in elderly persons with renal insufficiency. *Circulation* 2003, 107,87-92
- 18 Levin A, Thompson CR, Ethier J, et al. Left ventricular mass index increase in early renal disease: impact of decline in hemoglobin. *Am J Kidney Dis* 1999, 34,125-134
- 19 Seyahi N, Altıparmak MR, Kahveci A. Coronary artery calcification and impaired renal function. *Am J Kidney Dis* 2005, 45,787
- 20 Wang MC, Tsai WC, Chen JY, et al. Stepwise increase in arterial stiffness corresponding with the stages of chronic kidney disease. *Am J Kidney Dis* 2005, 45,494-501
- 21 U.S. Renal Data System, USRDS 2005 Annual Data Report: Atlas of End-Stage Renal Disease in the United States. *Chronic Kidney Disease. Am J Kidney Dis* 2006, 47,s47-s64
- 22 Karalliedde J, Viberti G. Microalbuminuria and cardiovascular risk. *Am J Hypertens* 2004, 17,986-993
- 23 Muhlberg W, Platt D. Age-dependent changes of the kidneys: pharmacological implications. *Gerontology* 1999, 45,243-253
- 24 Levey AS, Coresh J, Balk E, et al. National Kidney Foundation practice guidelines for chronic kidney disease: evaluation, classification, and stratification. *Ann Intern Med* 2003, 139,137-147
- 25 Woodman R, Ferrucci L, Guralnik J. Anemia in older adults. *Curr Opin Hematol* 2005, 12,123-128
- 26 Cunningham J, Sprague SM, Cannata-Andia J, et al. Osteoporosis in chronic kidney disease. *Am J Kidney Dis* 2004, 43,566-571
- 27 K/DOQI clinical practice guidelines for bone metabolism and disease in chronic kidney disease. *Am J Kidney Dis* 2003, 42,S1-201
- 28 Letourneau I, Ouimet D, Dumont M, et al. Renal replacement in end-stage renal disease patients over 75 years old. *Am J Nephrol* 2003, 23,71-77
- 29 Schwenger V, Morath C, Hofmann A, et al. Late referral—a major cause of poor outcome in the very elderly dialysis patient. *Nephrol Dial Transplant* 2006, 21,962-967
- 30 Lamb EJ, Webb MC, Simpson DE, et al. Estimation of glomerular filtration rate in older patients with chronic renal insufficiency: is the modification of diet in renal disease formula an improvement? *J Am Geriatr Soc* 2003, 51,1012-1017
- 31 Levey AS, Bosch JP, Lewis JB, et al. A more accurate method to estimate glomerular filtration rate from serum creatinine: a new prediction equation. Modification of Diet in Renal Disease Study Group. *Ann Intern Med* 1999, 130,461-470
- 32 Brochner-Mortensen J, Rodbro P. Selection of routine method for determination of glomerular filtration rate in adult patients. *Scand J Clin Lab Invest* 1976, 36,35-43
- 33 Swan SK. The search continues—an ideal marker of GFR. *Clin Chem* 1997, 43,913-914
- 34 Shlipak MG, Katz R, Sarnak MJ, et al. Cystatin C and prognosis for cardiovascular and kidney outcomes in elderly persons without chronic kidney disease. *Ann Intern Med* 2006, 145,237-246
- 35 Reed CH. Diagnostic applications of cystatin C. *Br J Biomed Sci* 2000, 57,323-329
- 36 Coresh J, Astor B. Decreased kidney function in the elderly: clinical and preclinical, neither benign. *Ann Intern Med* 2006, 145,299-301
- 37 KDOQI Clinical Practice Guidelines and Clinical Practice Recommendations for Anemia in Chronic Kidney Disease. *Am J Kidney Dis* 2006, 47,S11-145

The Arizona Geriatrics Society extends its sincere appreciation to this year's sponsors and exhibitors

Sponsors

Abbott Labs

Arthro-Care Spine

Amgen

Astra Zeneca

Eisai

Eli Lilly & Company

Forest Pharmaceuticals

Roche Labs

UCB Pharma

Exhibitors

Abbott Labs

Amgen

Area Agency on Aging, Region One

Complete Comfort Care

Concentric Homecare Solutions

Division of Aging & Adult Services

Evercare

Geriatric Solutions/Desert Oasis Hospice

Home Instead Senior Care Lifeline

Hospice of the Valley

Icare Health Monitoring

Jackson White Attorneys at Law

Merck & Company

Odyssey Health Care

Sucampo Pharmaceuticals

UCB Pharma

Visiting Angels Scottsdale

The Privilege of Aging

Donna Swaim, PhD

How often do we think of aging as a “privilege”? Perhaps only in moments of humor when we acknowledge that it “beats the alternative”. However, it is in moments of serious contemplation that we need to realize what a privilege it is to have the perspective possible only because of our own aging.

Great poets of the past have shown us our aging and mortal selves. We may have been called upon to memorize their lines for an exam as undergraduates, but the introspection needed for understanding was unlikely. Now that we are in the midst of aging ourselves, or called upon to be a caring physician to the aging, we are more able to understand the brilliance of those poets’ insights.

The early twentieth-century English poet, William Butler Yeats, in 1928, wrote from the ironic awareness that “decrepit age has been tied to me as to a dog’s tail” while in the same poem he could be thrilled that he had never had a “more excited, passionate, fantastical imagination, nor an ear and eye that more expected the impossible”. Also in 1928, as an inspector of schools, he realized that the school children saw him as “a sixty year old smiling public man” while his interior monologue, rich with classical references and a lifetime of allusions and images, swirled throughout his mind.

We too may see in the mirror or in family photos an external image unlike our interior reality. Recognizing the inevitable deterioration of our physical self in contrast to the increased potential of the interior self gives us the opportunity to continue to enrich our interior reality daily. We have the experiences of many years which have shown us the sources of this rich interior satisfaction. We have the sense of which accomplishments were fleeting and which became a foundation upon which to continue to build. The physician may see the pale face, the sagging body, the halting step but miss the rich interior story. But well considered questions from the physician to the patient about both past experiences and current satisfactions may make that rich interior accessible for healing through greater understanding.

John Keats was not aging but recognized his terminal illness in the same “consumption” which had claimed the life of his brother. In his poem, “When I have fears that I may cease to be before this pen has gleaned my teeming brain...” we see the stimulus to do what we can, quickly, while there is still time: tell our grandchildren stories, share what we have with others, write poetry ourselves, feel unconditional love...no longer fool ourselves as T.S. Eliot’s Prufrock repeated endlessly: “there will be time...there will be time...”

The passage of time for the aging seems to acquire a strange elasticity. Many of the identity labels that throughout earlier stages of our lives separated us by

gender, race, profession, social class, nationality, etc. have been stripped away, by choice or by chance by the passage of time. Now we have the opportunity to see to the core of what it means to be human, what joins us to the larger human community. We can now see the human community as totally inclusive of every human who has ever lived and who ever will live. That opportunity to be part of something far larger than our singular physical self, more extensive than our family tree from ancestors through descendants, raises the questions of mortality/immortality apart from specific divisive cultural or religious answers.

Perhaps, William Shakespeare did the best job of reminding us of our universal human condition when he wrote his sonnet comparing the aging self to the autumn of the year, then to the twilight of the day, and finally to the embers of the dying fire “consumed by that which it was nourished by”. Perhaps the ultimate paradox of the human condition is the realization that we are killed by the body that made it possible for us to live. In the concluding couplet, Shakespeare speaks to his listener, or perhaps to himself:

“This thou perceivest, which makes thy love more strong,
To love that well which thou must leave ere long.”

Thus, the ultimate privilege of aging may be the ability to value what we have rather than lament what we have “spent”.

*Donna E. Swaim, PhD
Seventy-two year old smiling teacher
in Medical Humanities
January 1, 2006*

Life of Numbers

Rose Do, MD, Medical Resident, University of Arizona College of Medicine

The other day, my doctor told me my kidneys are not doing as well as they were when I was a teen. "But I exercise, don't smoke, eat well, and take care of myself!" I said, "how can this be?"

"Yes, but you're getting older. What do you expect?"

I guess I can't expect too much. Now I have a number applied to my kidney function. This goes along with my pant size, shoe size, eyeglass prescription, etc. When hearts fail, the doctor looks at it on a machine and gives it a percentage: a percentage of function. There are numbers for liver function too.

For my brain, they even have tests, like when I was a kid. Except these are silly questions. I get embarrassed when I can't answer some of the questions. Sometimes I get pretty angry too. The doctor and his young resident look at me and feel sorry for me. We add up my score and determine if my head's working properly. The doctor hasn't told me my grade, so I have no idea where my head is. But then again, if there were a problem, I'm not sure the number would mean much to me anyway. So he told me my kidney number that day. Now it's just one more number to define me. When someone wants to see if I'm "old" they ask me my age. Without seeing me or talking to me, that number alone tells people what they can expect, or what I can expect. Which, like I mentioned before, probably isn't much.

But the composite of these numbers doesn't tell people everything. Numbers tell me how my heart functions, but not how it works. They don't reveal my lifetime of heartbreak, love, and compassion. They don't show how it continues to "grow" and do things I didn't know were possible. My mind is not as sharp as it used to be, but in one minute I can be transported in time. I can live out memories that span longer than my doctor's lifetime. My body's seen better days, of course. But each scar has its story. Each wrinkle is from living, crying, smiling.

I also walk slower than I used to. It's actually because I tire easily, but I tell people it's because I'm admiring the sights. Why did I rush so much when I was younger, anyway? We all get to the same place eventually. And the numbers to define my vision aren't great. But if I close my eyes, I can see more vividly than someone half my age. My hearing measurements are down too. But if I want to go back to that New York opera I heard as a young woman, I can hear it better than any music prodigy.

Anyway, when I leave my doctor's office, I shuffle away and put on my sweater as a shield from the cold.. Kids run past me, and young adults dodge me. I'm mostly in the way. I don't expect much. And honestly, people don't expect much when they know my numbers.

But hear my story, and you'll see that I'm greater than the sum of my parts... my life of numbers, it doesn't add up.

Remembrance of Alzheimer's

Robert Hess, PhD

You came sneaking up on me
You tired old thief
As I slept each night
You took just a little
Until one day I awoke
And it was simply all gone
I just hadn't noticed

All those thoughts
All those memories
Of shoes and laces
And who are those faces?
Vanishing traces
What are laces?

My very first kisses
My children at Christmas
Memory's near misses
Who were those kisses?
And what is Christmas?

Please tell me
Good thief
Where is my home?
Am I home?
Is that my home?
I feel so alone
Why couldn't you have taken
My desire to roam.

The only thing you left me to see
Are halls with dead ends
Why can't there be bends?
Why does it all blend?
Why can't it all end?

So I'm going in circles
There's a crack in the floor
I hadn't noticed that before
I hadn't noticed that before
I hadn't noticed that before

I think you might have left me one chair
I just don't know where

Author Contact:
Robert Hess, Ph.D.
2645 East Whitton Avenue
Phoenix, AZ 85016
602-373-0807

Funding Sources for Long Term Care

Randal Scott, MSW, MBA, Instructional Specialist Senior, Arizona Center on Aging, Arizona Health Sciences Center, University of Arizona

Long-term care encompasses a wide array of medical and non-medical diagnostic, preventive, therapeutic, rehabilitative, personal, social, supportive, and palliative services in a variety of settings for individuals who have lost some capacity for self-care because of a chronic illness or physical, cognitive or emotional impairment.¹ The goal of long-term care is to promote the optimally independent level of physical, social and psychological functioning in the least restrictive environment.

Publicly funded long-term care programs include Medicare, Medicaid, the Veterans Health Administration, the Administration on Aging, and state programs. These programs account for 62% of funding for Skilled Nursing Facility (SNF) and home health care. Private financing includes private insurance and out-of-pocket expenditures.²

The Administration on Aging - The National Aging Services Network

The Administration on Aging (AoA) in the U.S. Department of Health and Human Services is one of the nation's largest providers of home and community-based care for older persons and their caregivers. The mission of the Administration on Aging is to ensure that older Americans have the opportunity to age with dignity, have choices in managing their own lives, and remain active and productive members of their families and communities.

Created in 1965 with the passage of the Older Americans Act, the Administration on Aging is part of a federal, state, tribal and local partnership called the *national aging services network*. This network, serving about seven million older persons and their caregivers, consists of 56 State Units on Aging, 655 Area Agencies on Aging, 243 Indian Tribal and Native Hawaiian Organizations, at least 29,000 service providers, and thousands of volunteers throughout the United States.

AoA awards Older Americans Act (OAA) funds (\$1.4 billion in 2006) for supportive home and community-based services to the State Units on Aging (SUA), which are located in every state and U.S. territory. In addition, the OAA also helps fund Native American aging programs, known as "Title VI," to meet the unique needs of older American Indians, Aleuts, Eskimos and Hawaiians.³

State Units on Aging: State Units on Aging (SUAs) are agencies of state and territorial governments designated by governors and state legislatures to administer, manage, design and advocate for benefits, programs and services for the elderly and their families and, in many states, for adults with physical disabilities. SUAs administer Older Americans Act funds in their respective states, as well as state-funded home and community based programs for older persons, the Medicaid Home and Community Based Services Waiver programs for the elderly (in 28 states), and/or programs for younger adults with physical disabilities (in 21 states). SUAs also have significant policy, planning and advocacy roles.⁴

Area Agencies on Aging: Most states are divided into

planning and service areas (PSAs), so that programs can be tailored to meet the specific needs of older persons residing in different areas. Area Agencies on Aging (AAAs) are the agencies designated by the state to be the focal point for OAA programs within a PSA. AAAs were established under the Older Americans Act in 1973 to plan, coordinate and offer services that help older adults remain in their homes.

OAA-Funded Services: All AAAs and Title VI agencies support a range of home and community-based services, but these services vary across communities to reflect varying local needs and resources. The services generally available through AAA and Title VI agencies fall into five broad categories: information and access services, community-based services, in-home services, housing and elder rights. Within each category a range of programs is available.

- **Information and Access Services:** Information and Referral/Assistance, Health Insurance Counseling, Client Assessment (determination of client needs and eligibility for services), Case/Care Management, Transportation, Caregiver Support, and Retirement Planning and Education.
- **Community-Based Services:** Employment Services, Senior Centers, Congregate Meals, Adult Day Care Services, Volunteer, In-Home Services, Home-Delivered Meals, Homemakers, Chore Services/Home Repair and Adaptation, Telephone Reassurance, Friendly Visiting, Energy Assistance and Weatherization, Emergency Response Systems, Home Health Services, Personal Care Services, and Respite Care.
- **Housing:** Senior Housing and Alternative Community-Based Living Facilities that bridge the gap between independent living and nursing homes.
- **Elder Rights:** Legal Assistance, Elder Abuse Prevention Programs, and Ombudsmen Services for Complaint Resolution.

Medicare and Medicaid⁵

Medicare (which extended health coverage to almost all Americans age 65+) and Medicaid (for low income elderly) were enacted in 1965 as amendments to the 1935 Social Security Act.⁶

Medicare: Of the nearly 288 million Americans in 2002, 40.5 million were Medicare patients. Medicare provides limited coverage for post-hospitalization short-term home care, as well as SNF sub-acute and rehabilitative care.

Part A of Medicare covers certain long-term care services, including home health agency care (the first 100 visits following a three-day hospital stay or a SNF stay if intermittent or part-time skilled nursing and/or certain other therapy or rehabilitation care is necessary). In addition, hospice care can be provided if a terminally ill person with a life expectancy of six months or less elects to forgo the standard Medicare benefits for treatment of their illness and

Funding Sources for Long Term Care

to receive only hospice care. There are important regulations on the length and nature of care under Part A.

Almost all persons entitled to Part A choose to enroll in Part B by paying a monthly premium. Part B covers home health care following a three-day hospital or SNF stay not covered under Part A. To be covered, all services must be either medically necessary or one of several prescribed preventive benefits. Part B services are generally subject to a deductible and coinsurance.

Medicare Advantage (Part C) is an expanded set of options for the delivery of health care under Medicare. Most beneficiaries enrolled in both Part A and Part B can choose to participate in a Medicare Advantage plan instead. Medicare Advantage plans are required to provide at least the current Medicare benefit package, excluding hospice services, and may offer additional covered services.

The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 established Part D, a prescription drug benefit.

An extraordinary rise in home health care expenditures during the 1990s resulted in the implementation of an Interim Payment System (IPS) in 1997 and a more permanent Prospective Payment System (PPS) in 2000. These payment systems were designed to change the Medicare home health benefit away from long-term personal care services and return it to a greater focus on nursing care and rehabilitation. As a result, costs were reduced and there was a decrease in the use of Medicare-funded home health aide care.⁷ This decline in the face of rising Medicare enrollment suggests a significant reduction in access to Medicare home health services.⁸ Nevertheless, more than 2.8 million patients received home health care through Medicare in 2004, and almost 800,000 received hospice care.

Medicaid: Medicaid pays for certain health and home and community-based services, and is a major resource for long-term care for persons with limited incomes and assets. Coverage varies significantly by state.⁹ Within broad national guidelines (such as mandatory Medicaid "categorically needy" eligibility groups) established by Federal statutes, regulations, and policies, each state (1) establishes its own eligibility standards; (2) determines the type, amount, duration, and scope of services; (3) sets the rate of payment for services; and (4) administers its own program. States generally have broad discretion in determining which groups their Medicaid programs will cover and the financial criteria for Medicaid eligibility, as well as the amount and duration of services offered under their Medicaid programs.

Nearly 8% of Medicaid patients in 2002 were aged. About 40% of all long-term care costs are paid by the Federal/State Medicaid Program. In 2003, about 32% of home care expenditures were paid by Medicare and approximately 13% were covered by Medicaid.¹⁰ Few assisted living costs are covered by Medicaid, although it has been rising gradually.¹¹ In 2004, 36% of Medicaid long-term care expenditures was for home and community-based services.¹²

Waivers Programs and PACE:¹³ Many states have requested "waivers" to pay for normally uncovered home and community-based services (HCBS) for Medicaid-eligible persons who might otherwise be institutionalized. One state option is known as Programs of All-inclusive Care for the Elderly (PACE).

PACE is a capitated benefit that features a comprehensive service delivery system and integrated Medicare and Medicaid financing. The idea for PACE began in San Francisco's Chinatown in the early 1970s. Asian families preferred to have their elders live at home, but were worried about their safety during the day. An area social worker proposed transporting seniors to a community center that provided "one-stop" comprehensive health and social services for its clients during the day. The center opened in 1973 and was called, "On Lok," which means "peaceful happy abode" in Cantonese.

The On Lok program was the model that inspired a Medicare and Medicaid demonstration program option called PACE in 1987. In 1997, the Balanced Budget Act legislated PACE to be considered on a state-by-state basis as a permanent Medicaid waiver provider. PACE functions within the Medicare program as well.

Participants must be at least 55 years old, live in the PACE service area, and be certified as eligible for nursing home care by the appropriate State agency. While enrolled, the participant must receive Medicare and Medicaid benefits solely through the PACE organization.

The PACE benefit package for all participants, regardless of source of payment, must include: (1) all Medicaid covered services, as specified in the State's Medicaid plan, (2) interdisciplinary assessment and treatment planning, (3) primary care, (4) social work services, (5) restorative therapies, (6) personal care and supportive services, (7) nutritional counseling, (8) recreational therapy, (9) transportation, (10) meals, (11) medical specialty services, (12) laboratory tests, x-rays, and other diagnostic procedures, (13) drugs and biologicals, (14) prosthetics and other DME, (15) acute inpatient care, (16) nursing facility care, and (17) other services determined necessary by the interdisciplinary team to improve and maintain a participant's overall health status. The PACE benefit package for Medicare participants must include hospital insurance benefits and supplemental insurance benefits. PACE care is provided in day health centers, homes, hospitals, and nursing homes.

An interdisciplinary team at each PACE Center is composed of at least the following: a primary care physician; registered nurse; social worker; physical therapist; occupational therapist; recreational therapist or activities coordinator; dietitian; PACE center manager; home care coordinator; personal care attendants or their representative; and drivers or their representative.

The interdisciplinary team is responsible for initial and periodic assessments, care planning and coordination of 24-hour care delivery. It must serve primarily PACE participants. Each team member is responsible for: (1) regularly informing the interdisciplinary team of the medical, functional, and psychosocial condition of each participant; (2) remaining alert to pertinent input from other team members, participants and caregivers; and (3) documenting changes of a participant's condition in the medical record consistent with policies established by the medical director.

The Veterans Health Administration¹⁴

The Department of Veterans Affairs, Veterans Health Administration operates 159 VHA medical centers, more

Funding Sources for Long Term Care

than 700 ambulatory care and community-based clinics, 134 nursing homes, and 42 domiciliaries.¹⁵ The VA offers a spectrum of geriatric and extended care services to veterans enrolled in its health care system. More than 90 percent of the VHA medical centers provide home and community-based outpatient long-term care programs. Among these services are the following:

Home-Based Primary Care: This program provides long-term primary medical care to chronically ill veterans in their own homes under the coordinated care of an interdisciplinary treatment team. In 2003, home-based primary care programs were located in 76 VHA medical centers.

Contract Home Health Care: Professional home care services, largely nursing services, are purchased from private-sector providers at every VA medical center

Adult Day Health Care: VHA Adult Day Health Care programs provide health maintenance and rehabilitative services to veterans in a group setting during daytime hours. In 2004, the VA operated 21 programs directly and provided contract day care services at 112 VHA medical centers.

Homemaker and Home Health Aide (H/HHA): These services are provided in the community by public and private agencies under a system of case management provided directly by VHA staff. The VHA purchased H/HHA services at 122 medical centers in 2004.

Community Residential Care: The community residential care program provides room, board, limited personal care, and supervision to veterans who do not require hospital or nursing home care and have no family to provide care, but are not able to live independently. The veteran pays for the cost of this living arrangement. The VHA's contribution is limited to the cost of administration and clinical services, which include inspection of the home and periodic visits to the veteran by VHA health care professionals. Medical care is provided to the veteran primarily on an outpatient basis at VHA facilities. Primarily focused on psychiatric patients in the past, this program is becoming increasingly focused on older veterans with multiple chronic illnesses that can be managed in the home under proper care and supervision.

Respite Care: In the past, respite care was primarily provided in an institutional setting, typically a VHA nursing home. The Veterans Millennium Health Care and Benefits Act expanded respite care to the home and other community settings. Currently, respite care programs are operating in 136 VHA medical centers, with each program typically providing care to approximately five veterans on any given day. Respite care is usually limited to 30 days per year.

Home Hospice Care: Home hospice services are provided by an interdisciplinary team of health care providers and volunteers. Hospice services are available 24 hours a day, seven days a week, and bereavement care is available to the family following the death of the patient. VA-provided home hospice care was available at 73 medical centers in fiscal year 2003, the first year it was offered.

Domiciliary Care: Domiciliary care is a residential rehabilitation program that provides short-term rehabilitation and health maintenance to veterans who require minimal medical care as they recover from medical, psychiatric, or psychosocial problems. Most domiciliary patients return to independent living in the community after a period of rehabilitation.

Domiciliary care is provided by 43 VhA and 49 state homes in 33 states. The VhA also provides a number of psychiatric residential rehabilitation programs and compensated work therapy or transitional residences.

Telehealth: For most of the VA's non-institutional care, telehealth communication technology can play a major role in coordinating veterans' total care with the goal of maintaining independence. Telehealth offers the possibility of treating chronic illnesses more cost-effectively while contributing to the patient satisfaction generally found with care at home.

Geriatric Evaluation and Management (GEM): Older veterans with multiple medical, functional or psychosocial problems and those with particular geriatric problems receive assessment and treatment from an interdisciplinary team of VA health professionals. GEM services can be found on inpatient units, in outpatient clinics and in geriatric primary care clinics. In 2004, there were 57 inpatient GEM programs and more than 195,000 visits to GEM and geriatric primary care clinics.

State Funding: Some states use their general revenue funds to provide home and community-based services for persons whose income or assets are too low to enable them to purchase services, but too high to qualify for Medicaid.

Private Long-Term Care Insurance:¹⁶ Long-term care insurance is designed to help individuals with significant functional and/or cognitive impairments. Though originally focused on skilled nursing facility services, it often now gives claimants access to such alternatives as home health care, homemaker service, adult day care, respite care, and assisted living. Most claimants report being satisfied with their policy. The federal and state governments have sought to encourage a shift toward greater private financing of long-term care services, including long-term care insurance.

References:

- 1 - Special Committee on Aging. (2000). *Developments in Aging: 1997 and 1998*, Volume 1, Report 106-229. Washington, DC: United States Senate.)
- Center for Home Care Policy and Research. Policy Brief, No. 22. (2005). *Long-Term Care: An Overview*. Online at <http://www.vnsny.org/research/>. Accessed in June 2006.
- 2 Rosenthal, B. (2003). Broken and unsustainable: the aging of Baby Boomers means a cost crisis in long term care. *Contemporary Long Term Care*. 26(10), October, pp. 22-24.
- 3 U.S. Administration on Aging. Online at www.aoa.gov/. Accessed June 2006.
- 4 National Association of State Units on Aging. Online at www.nasua.org/StateUnits.cfm. Accessed in June 2006.
- 5 - Hoffman, ED, Klees, BS, and Curtis, CA. (2005). *Brief Summaries of Medicare and Medicaid: Title XVIII and Title XIX of the Social Security Act*. Centers for Medicare & Medicaid Services.
- Centers for Medicare & Medicaid Services. *Medicare Coverage of Skilled Nursing Facility Care*. Online at www.medicare.gov/Publications/. Accessed in June 2006.
- Centers for Medicare & Medicaid Services. *Medicare and Home Health Care*. Online at <http://www.medicare.gov/Publications/>. Accessed in June 2006.
- Centers for Medicare & Medicaid Services. (Statistics). Online at <http://www.cms.hhs.gov/home/rsds.asp>
- 6 Medicare. Online at www.Medicare.gov. Accessed June, 2006.
- 7 McCall, N and Korb, J. (2003). *Medicare Home Health Use after the 1997 BBA: Fact Sheet*. No. 14. The Home Care Research Initiative, Robert Wood Johnson Foundation and Visiting Nurse Service of New York. Online at www.vnsny.org/hcri/publications/. Accessed in June 2006.

Funding Sources for Long Term Care

- 8 Chyongchiou, JL and Meit, M. (2005). Changes in Medicare Home Health Care Use and Practices in Rural Communities. *Journal of Aging and Health*. 17(3), June, pp. 351-362.
- 9 Miller, NA, Harrington, C, and Goldstein, E. (2002). Access to Community-Based Long-Term Care: Medicaid's Role. *Journal of Aging and Health*. 14(1), February, pp. 138-159.
- 10 National Association for Home Care. (2004). *Basic Statistics about Home Care*. Washington, DC.
- 11 - Stucki, B. R., and J. Mulver. (2000). *Can aging baby boomers avoid the nursing home? Long-term care Insurance for Aging in Place*. Washington, DC: American Council of Life Insurers.
- Wright, B. (2004). *Assisted Living in the United States: Research Report*. AARP Public Policy Institute. Online at www.aarp.org/research/housing-mobility/assistedliving. Accessed in June 2006.
- 12 Kassner, E. (2006). *Home and Community-Based Long-Term Services and Supports for Older People: Research Report*. AARP Public Policy Institute. Online at www.aarp.org/research/housing=mobility/homrcare. Accessed in June 2006.
- 13 - Centers for Medicare & Medicaid Services. *PACE – Overview*. Online at www.cms.hhs.gov/pace/. Accessed in June 2006.
- Centers for Medicare & Medicaid Services. *PACE Fact Sheet*. Online at www.cms.hhs.gov/pace/. Accessed in June 2006.
- National PACE Association. (2003). *Summary of PACE Provider Regulation, 42 CFR Part 460*. Online at www.npaonline.org/. Accessed in June 2006.
- 14 Department of Veterans Affairs, Veterans Health Administration. (2005). *Fact Sheet: VA Long-Term Care*. Online at www1.va.gov/health/. Accessed in June 2006.
- 15 Malphurs, FL and Striano, JA. (2001). Gaze Into the Long-term Care Crystal Ball: The Veterans Health Administration and Aging. *Journal of Gerontology: Medical Sciences*. 56A(11), pp. M666-M673.
- 16 - Cohen, MA. (2000). Private Long-Term Care Insurance: A Look Ahead. *Journal of Aging and Health*. 15(1), pp. 74-98.
- Cohen, M and Miller, J. (2002). *The Impact of Private Long-Term Care Insurance on Claimants: Formal and Informal Care in the Community*. The Home Care Research Initiative, Robert Wood Johnson Foundation and Visiting Nurse Service of New York. Online at www.vnsny.org/hcri/publications/. Accessed in June 2006.
- Health Insurance Association of America. (2003). *A Guide to Long-Term Care Insurance*. Online at www.ahip.org/. Accessed in June 2006.



HOSPICE
of the VALLEY

Your not-for-profit hospice
since 1977

*Bringing comfort
and dignity
as life nears its end*

602.530.6900

www.hospiceofthevalley.org

Cultural Issues Raised by an Aging Asian-Indian Immigrant Population

Nilay Kavathia, MA, Medical Student, University of Arizona College of Medicine

Amit Shah, MD, Department of Geriatrics, Johns Hopkins University

In the coming years, the first significant wave of Asian Indian-Americans will be joining the ranks of the geriatric population in Arizona and over the rest of America. The first major wave of immigration from India took place in the early 1970s after immigration reform in 1965; thousands of young professionals and students came to the United States and settled in their new country. After spending their professional lives in America, this generation is now retiring. With time and further immigration reform in 1986, even more Indians arrived in the United States, often followed by other family members, including aging parents. Now with more than 15,000 Asian-Indians in Arizona, and about 1.6 million people of Indian origin in the United States, it is perhaps an appropriate time to look at the unique issues dealing with aging and the Indian community.

One of most interesting and relevant issues is this population's general aversion to nursing homes and assisted living facilities. In general, the Indian community is trusting of western medicine, largely due to the high number of physicians of Indian origin. However, similar to the cultures of many developing countries, Indian culture is very family oriented, with the majority living in an extended-family of multiple generations under the same roof. Like other cultures, Indians take pride in taking care of family members, specifically the elderly. Until recently, there were no nursing homes in India, and the majority of care was done by family members; even the new ones are looked on by many as a negative Western influence. Community leaders I have spoken to say that the older Indian generation feels that ending up in a nursing home is a sign that one has failed in life because they have secured no one to take care of them. To compound this stigma, this summer an article in a prominent Arizona Indian newspaper (Valley India Times, June 2005 vol. 6 issue 11) contained a three-page article by Jay Alagia about adult care facilities. This article went into detail about why nursing homes and adult care facilities do not fit the way of life for Indians, creating a feeling in the Asian-Indian community that adult living centers were not a viable option for them.

To better understand the aging members of the Asian-Indian community, it is important to be aware of the issues that make this community feel that aging in this country will be problematic. The principal issue is that

Elderly Indians highly value being around family and want to be able to see them as much as possible. Any situation in which an individual of this group is restricted from seeing or living with family will often be met with resistance. Similarly, decision making will most often be made in the context of a family rather than the individual alone. Therefore, delivering bad news might often be better received if delivered to the entire family rather than the patient alone. In addition, many people of this group are very particular about their diet. Many Indians are vegetarian or are accustomed to eating Indian food; this often is a cited reason of avoiding adult care settings. In the event of admission to a nursing home, it is not unheard for families to bring daily meals to the nursing home. Also, many individuals believe they will not be able to observe their holidays or practice their religion in these settings, due to lack of awareness.

In summary, due to an immigration wave in the 1970's, there are a large number of individuals of Indian origin who are soon going to be age 65. Effectively and compassionately providing care to these patients and their families will require awareness of several cultural differences from mainstream American society. While addressing issues ranging from a unique diet to differing views about autonomy and the role of the family, practitioners will need to strive to bridge the gaps with creative solutions that will respect this cultural diversity and provide for the needs of this unique population.

La Loma Care Center

La Loma Care Center, a new non-profit facility located on the La Loma Village campus, offers distinctive quality health care with the warm hospitality of home. Whether helping residents regain their independence, or working to meet current health needs, we are committed to providing a residential health experience that enhances an individual's life.



OPEN TO THE PUBLIC

For more information call:

623/537-7400 • 866/858-1785



LA LOMA VILLAGE
A ROSAMP/SUN HEALTH
SENIOR LIVING COMMUNITY

Located at the northwest corner of Camelback & Litchfield roads
14260 Denny Boulevard, Litchfield Park, AZ 85340