Using the Comprehensive Clinical Approach to Older Patients

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An 84-year-old woman comes to your office for routine follow up. Her problem list includes osteoarthritis and hypertension. She has no specific complaints on presentation, but you note she is using a cane for the first time since you’ve known her. On specific questioning, she reports several weeks of worsening of her chronic lower extremity edema, and increased difficulty climbing stairs and walking long distances. In fact, her daughter has begun doing her food shopping. She says she’s doing better with the cane, and her left knee pain is better since she started using over the counter Advil about one month ago.

This patient illustrates common dilemmas presented by complicated older adults with functional decline of unknown etiology in the face of multiple co-morbidities. Caring for the older adult requires the skills of a good physician and of a talented detective; disease in old age can present without classic or typical findings. The aging of the baby boomer generation, along with increases in life expectancy and medical advances, are producing stunning increases in the population of older Americans—over 65, over 75 and especially those over 85. Projections from the US Census Bureau estimate approximately 90 million Americans over the age of 65 and almost 20 million persons over 85 by the year 2050. Knowing some of the key principles of care and treatment for older adults will be useful for all physicians and practitioners, regardless of specialty or patient population, excluding only pediatricians. The aging imperative brings with it the challenge and excitement of caring for a complex patient population, in whom atypical presentations abound, and where small interventions often bring large and rewarding results for both patient and physician.

The goal of this column is to provide clinicians with 1) case-based learning and reinforcement of basic principles of Geriatrics, 2) updates on new treatment options for conditions of interest, 3) tools for use in daily practice, and 4) resources for further learning and for teaching students. Community referral sources, web-based teaching tools and learning resources will be provided. Topics will include outpatient care and prevention, nursing home medicine, and inpatient acute care.

Among healthy older adults, homeostasis is maintained in fine balance, just as in younger persons. The crucial difference is that changes in organ reserve, due to aging alone, are common, and lead to restricted capacity to maintain that homeostasis when stressed. Sometimes called “homeostasis” (a made up but vivid word), the concept is critical to understanding older persons. Only modest severity of physical illness, drug toxicity or trauma often results in catastrophic declines, leading to a cascade of seemingly unrelated problems (pneumonia presenting with confusion, falling, urinary incontinence and loss of self-care capacity). In such circumstances, recognition of the underlying trigger is challenging, especially if evaluation is limited to the organ with obvious symptoms – brain in confusional states, urinary tract for incontinence, and motor system for falls. Finally, multiple co-morbid conditions, changes in pharmacokinetics and pharmaco-dynamics, and the changes of pure aging lead to additional levels of complexity.

Hence, the tool of comprehensive geriatric assessment (CGA) has been developed to provide systematic assessment of the older adult to detect subtle changes, and to avoid missing important areas for intervention. The goal of CGA is to create a multidisciplinary care plan that will anticipate problems and prevent illnesses and functional decline; the ultimate goal is preservation of independence. Since CGA can consume a full new patient visit, quick screening (5 minutes) can be used to identify any needs for further assessment. CGA and screening can be especially useful when evaluating a new patient or when a new stressor, diagnosis, or transition in level of care has occurred. The basic components of CGA include assessment of physical function (ADL, IADL, Timed Up and Go test, and balance testing), affect (geriatric depression scale), cognition (MMSE, Mini-cog) and assessment of social supports and living situation.

The activities of daily living (ADL) include toileting, feeding, dressing, grooming, walking, and bathing. The instrumental activities of daily living (IADL) include telephone use, shopping, food preparation, housekeeping, laundry, transportation, and medication and finance management. In adults 65-74 years old, 15% describe one or two ADL dependencies, and 11% describe needing assistance with IADL. For those 85 and older, the percentages increase to 13% requiring assistance with IADL and 27% with ADL decline1. Performing an Up and Go test (rise from a chair, walk 10 feet, turn, walk back and sit) can provide useful information about fall risk and balance. If the patient takes longer than 9 seconds to perform the test, falls risk is increased; such patients would benefit from physical therapy assessment for interventions. If time does not permit formal measurement of the test, then simply watching the patient walk, such as when going from a chair to the exam table is also useful.

Depression screening is recommended; although not more common with age, under-reporting and much lower detection rates are reported. One-quarter of older adults acknowledge depressive symptoms, but only 1-9% meet DSM criteria for major depression2. The geriatric depression scale has a short form of 15 questions that can be administered quickly. Impaired psychosocial function predicts morbidity, mortality and functional decline. Cognitive assessment should also be performed at least yearly and during any new visit. The Folstein MMSE can be used, but many practitioners are using the Mini-Cog (three-item recall and clock drawing) as a quicker screen. Asking about other losses of function is also useful; e.g., incontinence, hearing, nutrition. Older patients may assume that symptoms in these domains are part of “normal aging,” and often do not complain. The above tools collect important information about an older adult’s risks for functional decline and any need for alteration in living situation; their use also detects func-
tional decline early, allowing intervention before harm occurs.

Now let’s return to our patient; she presents with new functional decline, triggering CGA. Is this decline due to worsening lower extremity edema, or is it due to the recent flare in her left knee osteoarthritis? Did Advil contribute? Additional history indicates that she remained independent until a month earlier, when her knee pain flared. Prior to this flare, she used the bus to go shopping, did her own housework and was able to climb steps without limitation. After the knee pain worsened, she began using Advil daily. Her daughter took over grocery shopping, and the patient began using her deceased husband’s old cane for support.

CGA spotlights the functional decline, which seems related to her increased venous stasis edema. While observing the patient move toward the exam table, you notice that her cane is too long for her—the handle at least 6 inches higher than the ulnar styloid of her arm when it is fully extended perpendicular to the ground. In addition, she uses the cane with the left hand—canes should be held in the arm on the side opposite the painful or weak lower extremity. You and the patient agree to stop the Advil, since it seems to be contributing to her fluid retention and increased edema, and try Tylenol around the clock. She agrees to physical therapy, where a new cane is fitted, she is instructed in its use and strengthening exercises are begun. Two weeks later, she reports that she no longer needs the cane and is able to use the bus to do her own shopping again. The edema has significantly improved as well, and she is thrilled to have regained her ability to live independently.

A parallel ending to this case could be described; imagine the same patient presenting to her physician’s office with improved osteoarthritic pain on Advil, and ambulation with the cane. A physician not familiar with CGA might have overlooked the improper fit of the cane and the significance of the functional decline, and no evaluation would have occurred. With continued Advil use, a different scenario is plausible. The patient remained stable for several months, but had progression of her edema and further restricted her activities. She started to rely on her daughter for help with housework and cooking. One evening she developed shortness of breath and orthopnea and called rescue. She was admitted for fluid retention and CHF, and treated with Lasix and oxygen, with improvement. However, while in the hospital she developed delirium secondary to electrolyte imbalance and dehydration from excess diuretics, fell and fractured her left hip. Surgery was successful, and she was discharged to a nursing home for rehabilitation after her delirium cleared. Because she never regained pre-fracture mobility, and because she could no longer manage her medications independently due to lingering cognitive deficits, she became a permanent resident of the nursing home.

The failure to recognize the significance of a seemingly small decline in function, and to anticipate its possible consequences, led to the uninterrupted cascade of decline, resulting in loss of independence and further co-morbidities with increased mortality risk. Delirium and hip fracture both carry substantial increases in mortality. The mortality rate for delirious hospitalized patients ranges from 22-76%, and the increased risk persists for up to a year. One-year mortality for hip fracture is 15-25% in women, and higher in men. Most significantly, this version of our patient’s story ends with her permanent placement in a nursing home—an outcome greatly feared by most of us.

The goals of geriatric care are to promote successful aging, to prevent and reduce disability, and to preserve independence. CGA provides a toolkit that can highlight disability early and generate a comprehensive multidisciplinary care plan that will anticipate and prevent clinical catastrophes and interrupt the cascade of decline. The principles learned from assessment research can be implemented in the busy office practice and can be streamlined to fit the physician’s needs. Take home questionnaires, pre-visit forms, and home assessments by occupational therapy or nursing can gather many of the elements for assessment and care planning when indicated by the office evaluation. Finally, community resources can be of tremendous assistance to a busy practitioner with limited support. The following are sources of referral and on-line resources for the tools allowing you to perform CGA on a routine basis.

**REFERENCES**

5. Ana C. Tuya, MD, is Assistant Professor, Division of Geriatrics, Brown Medical School.
6. Reynolds Project Resource Center for Geriatrics Education (RCGE) 863-3211

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