Mobile Geriatric Service Reduced Length of Stay

BY PATRICE WENDLING

CHICAGO — A novel mobile service that provides acute care for the elderly reduced hospital length of stay and costs with no change in in-hospital mortality or readmission rates when compared with more traditional services in a retrospective study.

Traditional acute care for the elderly (ACE) units, which have been shown to improve functional outcomes without increased costs or changes in length of stay, are limited to caring for patients in a fixed hospital unit, geriatrician Dr. Jeffrey Farber noted at the annual meeting of the American Geriatrics Society.

In contrast, a mobile acute care for the elderly (MACE) service follows patients no matter where they are in the hospital. The multidisciplinary MACE team includes a geriatrics attending and a geriatrics fellow, a social worker, and a nurse coordinator. The service focuses on early discharge from units when indicated, shares information collected via postdischarge telephone calls with outpatient physicians, and enters that follow-up information into the patient's electronic medical record.

The retrospective study at Mount Sinai Medical Center, New York, compared outcomes of patients on the MACE service with matched control patients admitted to general medical services and with patients admitted to an ACE unit during the prior year. Three-fourths of the patients were women; their mean age was 82 years in the ACE unit, 83 years on the MACE service, and 81 years among the controls. All patients had an average comorbidity score of 3 using the Elixhauser method, with hypertension being the most common condition (range 53%-60%), followed by congestive heart failure (22%-27%) and diabetes (22%-29%).

For 543 patients on the MACE service, the mean length of stay (5.9 days) was significantly lower than in 450 patients admitted to the ACE unit (8.3 days), said Dr. Farber, director of Mount Sinai's acute care for the elderly service.

Total costs were significantly lower with MACE ($10,518) than in the ACE unit ($14,164), as were direct costs ($4,882 vs. $6,367) and pharmaceutical costs ($631 vs. $961).

Comparing MACE with ACE, rates were similar for in-hospital mortality (4.4% vs. 4.9%), 7-day readmission (3.9% vs. 4.9%), and 30-day readmission (20.6% vs. 20.9%), he said.

Similar results were observed when 516 patients on the MACE service were compared with 3,168 propensity-score matched controls who received traditional care via general medical services. Patients on MACE had significantly lower mean length of stay (5.8 vs. 6.8 days) and total costs ($10,346 vs. $14,145) versus controls. Rates were similar for in-hospital mortality (4.5% vs. 5.0%), 7-day readmission (3.9% vs. 5.6%), and 30-day readmission (20.9% vs. 19.6%).

"We don't know which of the components of this model are driving these results," Dr. Farber said.

The focus on early discharge and early family meetings involving the MACE social worker and nurse coordinator may be driving the reduced length of stay, while reduced costs might be related to the more geriatric hospitalist nature of the service delivered by fewer physicians.

Because a MACE service does not require structural changes to a hospital or additional beds, there is the potential for wider adoption of such a service than a traditional ACE unit, Dr. Farber said.

Dr. Farber reported that he is supported by an academic career award from the Health Resources and Services Administration. The authors reported no conflicts of interest or study funding. ■

ACE Service Can Improve Processes of Care in Elderly

BY PATRICE WENDLING

CHICAGO — A hospitalist-run geriatrics service significantly improved the recognition and treatment of functional and cognitive status abnormalities in a retrospective analysis of 217 elderly inpatients.

Documentation and treatment of abnormal functional status was reported in 69% of patients assigned to an acute care for the elderly (ACE) service vs. 36% of those who received usual care. For abnormal cognitive status, the corresponding results were 56% vs. 40%.

There was a trend favoring ACE for the identification and treatment of delirium (27% vs. 17%), although neither model was outstanding, particularly with regard to hypoactive delirium, geriatrician and hospitalist Dr. Heidi Wald said at the annual meeting of the Society of Hospital Medicine.

'Existing resources can be leveraged to improve geriatric care.'

DR. WALD

There were no differences in use of sleep aids, physical restraints, or documentation of code status, although ACE patients had a significantly higher rate of do-not-resuscitate orders, compared with usual care patients (39% vs. 25%).

ACE and usual care patients had similar lengths of stay (mean 3.4 days vs. 3.1 days), although 30-day admission rates were slightly higher with ACE (12.3% vs. 9.5%).

Notably, mean hospital charges were not significantly higher with ACE, at $24,617 vs. $21,488 for usual care, said Dr. Wald, of the University of Colorado at Denver Health Sciences Center in Aurora.

"Existing resources can be leveraged to improve geriatric care," she said.

ACE units have been shown to improve functional outcomes in vulnerable hospitalized elders, but widespread adoption has been slow because of the need for and cost of a dedicated unit staffed by geriatricians and geriatric nurses.

Dr. Wald described the ACE service, now in its third year at her institution, as a hybrid between a general medical inpatient service and a traditional ACE unit. Key components include a core group of hospitalists with an interest in geriatric medicine, interdisciplinary rounds, a novel educational curriculum, and a standardized geriatric assessment approach. Patients are treated on a single medical inpatient unit when possible, something that occurred with two-thirds of ACE patients in the analysis.

In all, 122 patients were assigned to ACE and 95 to usual care during the study period of Nov. 1, 2007, to April 15, 2008. Their mean age was 80.5 years, slightly more than half were female, and the primary ICD-9 code was pulmonary disease in 28% of patients.

Dr. Wald observed that one of the keys to sustaining an ACE service is having a dedicated nursing staff, as many of the quality indicators for geriatric patients are nursing sensitive.

"Nursing staff loved this model and are very interested in increasing their nursing education around geriatric issues, and [are] happy to have a core group of physicians to work with on this," she said.

The researchers disclosed no conflicts of interest. ■

Dartmouth Atlas Examines Hospital and Physician Capacity

BY JOYCE FRIEDEN

A new report from the Dartmouth Atlas of Health Care finds that, overall, the hospital bed supply per capita contracted from 1996 to 2006, while the numbers of hospital-based employees and registered nurses increased.

The number of staffed acute care beds dropped from 2.82 per 1,000 U.S. residents in 1996 to 2.46 per 1,000 in 2006, according to the report. However, there was great regional variation. For example, the Jackson, Miss., area had 4.44 beds per 1,000 in 2006, compared with 1.45 in San Mateo County, Calif. Not surprisingly, the areas with the most beds also had high numbers of hospital employees.

"As long ago as the 1960s, Milton Roemer described the phenomenon that a built bed was a filled bed," noted the report authors. "Numerous studies since then have found that higher bed supply is associated with more hospital use for conditions where outpatient care is a viable alternative. This includes most medical causes of hospitalization."

Physician supply continued to expand "modestly," although numbers varied greatly by specialty, the report said. For example, the number of primary care physicians increased 11% over the study period, compared with 51% for infectious disease specialists and a whopping 198% for critical care specialists. Specialties that experienced declines included cardiothoracic surgery (–17%), pulmonology (–18%), and general surgery (–19%).

The authors made several suggestions for managing hospital capacity and physician workforce growth. To reduce "unwarranted" variations in hospital supply, "Congress could require the Centers for Medicare and Medicaid Services to use its capital payment policies to limit the further growth of hospital capacity in markets that are already overinvested," they wrote. "Although Certificate of Need programs have generally not been effective, strengthening [such] programs or statewide prospective hospital budgeting processes could be used to more wisely target future hospital growth. Neither of these approaches, however, would help reduce capacity in regions that already have an oversupply."

To better adjust the physician workforce, "a national workforce commission with representation from the clinical professions, public health, health care purchasers, and patients would provide badly needed analyses and research to better direct funds for health workforce training and for provision of care to the underserved," the authors suggested.

Another alternative for getting both hospital bed capacity and the physician workforce to the right size would be a more market-oriented approach based on organized systems of care, according to the report.

"Consensus is emerging that integrated delivery systems that provide strong clinical support to clinicians and team-based care management for patients offer great promise for improving quality and lowering costs," the authors wrote. ■

"Hospital and Physician Capacity Update: A Brief Report from the Dartmouth Atlas of Health Care" is available at www.dartmouthatlas.org/atlases/Capacity_Report_2009.pdf.