More Geriatric Outpatient Care is Associated with Less Emergency Department Use

D'Arcy LP, Stearns SC, Domino ME, et al. Is geriatric care associated with less emergency department use? J Am Geriatr Soc 2013;61:4–11.

Study Overview

Objective. To determine the association between outpatient geriatric care and emergency department (ED) use.

Design. Retrospective observational cohort study.

Setting and participants. Participants included fee-for-service Medicare enrollees who had an acute care hospital stay for acute coronary syndrome (ACS) between January 2003 and mid-October 2004, who were followed for up to 3 years. To isolate those patients with a higher likelihood of benefitting from geriatric care than the general Medicare population and reduce the impact of cardiac care related to ACS, the sample was then limited to those diagnosed with a new geriatric condition (at least 1 of 16 diagnoses previously used to identify patients who benefit most from geriatric care [stroke, dementia, depression, delirium, pressure ulcer, fracture, dislocation, laceration, osteoporosis, syncope, hearing impairment, vision impairment, weight loss, failure to thrive, or dehydration]) [1]. A new geriatric diagnosis was defined as occurring at least 1 year after the ACS hospitalization and not diagnosed during the prior 2 years. Participants were evaluated as either community-dwelling or nursing home (NH) residents.

Data source. Medicare Provider Analysis and Review, Outpatient, Carrier, and Denominator files from 2002–2007. These claims files were combined for each participant to create a comprehensive data set inclusive of inpatient and outpatient care, physician visits, and demographic characteristics.

Main outcome measures. The primary outcome was whether the patient had any ED use in a month. Covariates included age, gender, race, Elixhauser comorbidity index [2], region, insurance status, monthly seasonal variation in ED use, and yearly trends in ED use.

Comparison groups were created based on plurality (largest share) of type of physician visits. Type of physician visit was designated using the primary physician specialty listed for each visit claim. These visits in turn were grouped as (1) having no geriatrician visit and the plurality of visits were from physicians who were family medicine/internal medicine (*FM/IM plurality*, the referent comparison group), (2) plurality of visits from geriatricians (*geriatrician plurality)*, (3) participants who had 1 or more geriatrician visits, but for whom geriatricians did not represent the largest share of physician visits

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(*geriatrician consultation)*, and (4) plurality of specialist visits (*specialist plurality*).

The predictor variable was any geriatric care received during the previous 6 months. Geriatric care in turn was measured as any geriatrician visit (y/n), or the number of geriatrician visits.

For each participant, observations were constructed for consecutive 30-day periods ("months") starting at the date of the index geriatric condition diagnoses. Multivariable regression analyses controlled for observed and unobserved subject characteristics that were constant during the study period.

Main results. A total of 287,259 community-dwelling participants and 66,551 NH residents were included. Over participants' observed 6-month periods, any geriatric care was rare for both groups. This was more pronounced in community-dwelling participants (1.4%) when compared with NH residents (5.2%). For community-dwelling and NH participants, ≥ 1 outpatient geriatrician visits over a 6-month period was associated 11.3% and 11.5% lower monthly ED use. The largest reduction in ED use was associated with ≥ 3 geriatrician visits. When compared to participants with FM/IM, participants with geriatrician plurality were 10% less likely to use the ED. Those with geriatrician consultation were 11.3% less likely to use the ED the subsequent month. For NH residents, those with specialty plurality were 9.4% more likely to use the ED.
Conclusion. Outpatient geriatric care is associated with fewer ED visits. Whether outpatient care is rendered as geriatric primary care, or if it is provided as geriatric consultation care, any geriatric care was found to be associated with reduced ED utilization.

Commentary

Elders compose a growing proportion of the population, and their ED use is increasing. Based on National Ambulatory Medical Care Survey data trends from 1993–2003, number of ED visits for patients 65 to 74 years in age has doubled from 6.4 million visits to 11.7 million visits [3]. In 2006, people aged 65 years and older had 48.5 ED visits per 100 persons compared with 40.5 ED visits per 100 persons for all ages. Rates of ED use are even higher for persons aged 75 years and older, who had 60.2 ED visits per 100 persons [4]. Once in the ED, older patients receive more diagnostic tests, spend more time, and have higher charges for ED services compared with younger patients [5]. Thus, ED care for older adults is costly and has been a target of policy makers, hospitals, administrators, and clinicians to reduce health care expenditures.

This study by D'Arcy et al found that older Medicare beneficiaries (community-dwelling and NH residents) were less likely to have a subsequent ED visit if they had any geriatric outpatient care during the prior 6 months. Regardless if the outpatient care was with a geriatrician as the primary care service, or if it involved a geriatrician consultation, any outpatient geriatric care was associated with reduced ED visits. Translated into total number of visits, D'Arcy et al projected that having 1 or more geriatrician visits in a year is associated with approximately 108 fewer ED visits for every 1000 community-dwelling participants, or 133 fewer ED visits for every 1000 NH residents.

The geriatrics specialty focuses on additional training and certification in the care of older adults who may have chronic, multiple, and/or complex health conditions. Geriatricians are skilled in coordinating interdisciplinary care; in these care models, their roles range from being a leader of a team to occasional consultant to clinician with primary responsibility for care. Significant evidence exists that specialized geriatric care for older adults in the inpatient setting can reduce health care costs by reducing hospital length of stay [6]. Inpatient care on acute geriatric units is also associated with fewer falls, less risk of delirium, less functional decline, more discharges to home (and fewer discharges to NH), and lower overall costs [7]. A recent review of the medical literature revealed that direct outpatient care by a geriatrician resulted greater effectiveness of intervention outcomes and that geriatricians provided more effective medication management than other clinicians [8]. Thus, care by a geriatrician not only improves the quality of care rendered but also several patient-related and cost outcomes.

By 2030, it is projected the country will need over 36,000 geriatricians to serve the growing number of older adults. Unfortunately, the projected number of geriatricians at that time will be less than a quarter of that, making access to this specialty all the more difficult to attain. While evidence continues to mount of the effectiveness and efficiency that geriatric fellowship training can provide, our health care system priorities are not aligned with the growing demand and need for this specialty. Geriatricians are reimbursed less for their outpatient care than care delivered by non–fellowship-trained physicians. If the income for geriatricians continues to remains lower than that of internists, it has

been found the pursuit of additional specialty training actually has a negative return on educational investment. Unfortunately, recent health care policies (or lack thereof) will not correct this trend. As recommended by D'Aarcy et al, the implications of this paper suggest that an alternate solution may be the more efficient use of the current supply of geriatricians with consultative care or co-management by geriatrician consultation with primary care physicians.

The study has several limitations. Although the study evaluated a national sample of patients, findings may not generalize to patients without a history of ACS and geriatric conditions. The study also did not provide information about the type of care provided, only that a specialty group was the predominant outpatient care provider. Finally, secondary to unobserved time-varying characteristics such as functional decline (which may be associated with both increased geriatric care and ED use), the results are presented as findings and not causal associations.

Applications for Clinical Practice

The results of this study by D'Arcy et al indicate that outpatient care for older adults under the guidance of a geriatrician significantly reduces subsequent ED utilization. Clinicians caring for elders should heavily consider referring patients to geriatricians for primary care, or working with geriatricians who may provide consultation services. As the number of older adults requiring health care services continues to surge and the number of geriatricians decreases, the ability to access specialty care in older adults will only become more difficult. Geriatricians providing interdisciplinary care and care coordination may be the key to reducing health care costs, not only by reducing ED utilization but also in the hospital setting [6]. Until society and policy makers see the growing value of geriatric care and with it the urgency to change the current reimbursement structure for this specialty, the solution to improving the quality of care and the efficiency of care for older adults will only be increasingly elusive.

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