Bigger Equals Better? Large Multispecialty Medical Groups May Deliver Higher Value Care

Weeks WB, Gottlieb DJ, Nyweide DE, et al. Higher health care quality and bigger savings found at large multispecialty medical groups. Health Aff (Millwood) 2010;29:991–7.

Study Overview

Objective. To determine whether care provided to Medicare beneficiaries by large multispecialty group practices differs in cost and quality compared with care provided by smaller nonintegrated practices

Design. Retrospective observational cohort analysis.

Setting and participants. The investigators analyzed outcomes for Medicare beneficiaries who received care at multispecialty group practices affiliated with the Council of Accountable Physician Practices (CAPP). The council (www.amga-capp.org) is a consortium of 27 self-selected group practices who promote integrated and accountable care systems. The study population consisted of patients in the 20 CAPP practices that agreed to participate in the study, representing 22 health care markets assigned to Hospital Referral Regions (HRR) defined by the Dartmouth Atlas project. The practices provided names, unique provider numbers, and specialties of their affiliated physicians during 2005 to link to Medicare fee for service (FFS) beneficiaries. To be included in the study, each Medicare FFS patient over age 65 in a 20% random Medicare sample of the participating practices had to have at least 1 outpatient visit to a practice physician in 2005 or 2006, be enrolled continuously in Medicare Part B through 2005, and not be enrolled in a Medicare health maintenance organization (HMO) in 2005. Beneficiaries were assigned to a unique physician using an attribution methodology that relied on 2 years of ambulatory claims data, preferentially assigning them to a primary care physician if possible and otherwise to a specialist with whom they had the greatest number of visits over the 2-year period. The investigators then identified all physicians not affiliated with the participating CAPP groups in each HRR to determine a control group of Medicare FFS beneficiaries who received care at the local HRR non-CAPP practices.

Main outcome measures. The researchers computed 6 measures of ambulatory care quality drawn from claims-based measures approved by the Ambulatory Quality Alliance. The following measures were analyzed: annual hemoglobin A1c, lipid, and ophthalmologic testing among diabetics aged 65 to 75 years (along with the proportion of diabetic patients receiving all 3 screening tests); mammography screening rates for women aged 65 to 69 years; and ambulatory care–sensitive (ACS) hospital admissions rates (using Agency for Healthcare Research and Quality definitions). Both crude and risk-adjusted measures were computed. In addition, the investigators calculated 4 measures of costs, including mean standardized physician spending per Medicare FFS patient, mean standardized inpatient spending per FFS patient (including acute hospitalization, skilled nursing, and long-term care facilities), mean standardized home health costs, and mean total standardized costs. Payment levels were standardized through the use of single prices for each encounter, and other services were adjusted by the Medicare Geographic Practice Cost Index as well as age, sex, race, imputed income, Medicaid status, and Charlson comorbidity score. Costs above the 99th percentile were truncated to reduce the influence of outliers. The researchers used bivariate and multivariate logistic regression to examine quality metrics, Poisson regression for ACS hospitalization rates, and analysis of variance for cost metrics.

Main results. The researchers analyzed a total of 741,448 patients in the study, 64,647 of whom were in CAPP groups. Approximately 91% of patients were assigned to a primary care physician. The CAPP-group patients were more likely to be male and young, and less likely to be black, live in low-income zip codes, concurrently enrolled in Medicaid, and have higher comorbidity scores. All of the quality metrics showed wide ranges of variation in the CAPP group patients. Similarly, total Medicare spending varied between $5591 and $7394 among the CAPP patients. In adjusted analyses of the quality metrics, all 6 measures were better among CAPP group patients. Specifically, relative risk ratios (RRs) for mammography rates were 1.12 (95% confidence interval [CI], 1.10–1.15), annual hemoglobin A1c testing was 1.08 (95% CI, 1.06–1.10), annual lipid testing was 1.05 (95% CI, 1.03–1.08), annual fundoscopy was 1.08 (95% CI,

1.06–1.10), and completion of all 3 tests was 1.15 (95% CI, 1.12–1.18). The RR for ACS admission rates per 100 patients was 0.92 (95% CI, 0.89–0.94). Adjusted total standardized Medicare payments in 2005 were $272 (95% CI, $189–$355) lower among CAPP group patients compared with controls. The costs results held even after adjustment for market Medicare HMO penetration rates and methods of physician compensation.

Conclusion. Among Medicare FFS beneficiaries in a self-selected group of organizations espousing accountable care, large multispecialty group practices appear to provide modestly improved quality of care while reducing costs compared with their regional counterparts.

Commentary

Among the most pressing challenges surrounding the delivery of greater value health care is determining the ideal care settings to achieve meaningful improvements. Various modes of delivery change, ranging from primary care reform through the patient-centered medical home model to integrated accountable care organizations, are being promoted and tested through emerging CMS and private payer demonstration projects [1,2]. Conventional wisdom among health policy experts currently holds that larger, more integrated models of delivery with robust primary care as their base hold the keys to promoting value in health care, but so far the literature to support these views is somewhat sparse and limited to a few high-achieving organizations [3,4].

This study assessed the cost and quality of care provided to Medicare beneficiaries by a group of large multispecialty practices compared with a control group offering care within the same defined regions. The practices within the study group were all affiliated with the Council of Accountable Physician Practices (CAPP), a nonprofit, mutual-benefit organization of multispecialty practices that espouse provider accountability for cost and quality of care. Researchers found that patients treated by CAPP groups received higher quality care at lower cost across 6 quality measures and 4 cost measures. With regard to quality metrics, these results are consistent with the findings of other observational/cross-sectional studies that examined the quality of care delivery across various large practice settings [5,6]. Like these previous studies, the investigators in this study attributed the higher-quality care delivered at larger physician practices to their ability to more readily automate various care management processes. However, while previous studies were focused exclusively on quality measures, this study went further by examining the adjusted standardized cost of the same care, which was observed to be 3.6% lower than in the control group. Such an outcome comes as encouragement to those committed to concurrently elevating quality while "bending the cost curve," as these savings would translate into $15 billion per year if applied across Medicare.

This study contains several key limitations worth highlighting. First, this observational study cannot indicate exactly how or why the observed outcomes were achieved, nor can it provide causal evidence linking larger multispecialty practices to higher-quality, lower-cost care. Further, it is possible that the difference in patient characteristics seen between the 2 groups was incompletely adjusted for, thereby confounding the reported findings. Additionally, the practices that comprised the study group were self-selected for participation in CAPP and may not be representative of other large multispecialty practices. To this end, the authors did not indicate that the control group of non-CAPP practices excluded outcomes of large, non-CAPP multispecialty practices from being evaluated within the sample data. The presence of such groups may have either magnified or minimized the observed cost and quality differences between the two groups as well as distorted the degree to which the outcomes may be linked to large multispecialty groups as an independent variable.

There is also a larger question related to the impetus for the study, which was characterized as an effort to determine the cost- and quality-related benefits of large multispecialty practices which, the authors contend, are well positioned to take on payment risk as accountable care organizations. Of the 27 practices that comprised CAPP, 4 were described as independent groups that were not integrated with either a hospital or a health plan. The authors do not say whether any of the 4 independent practices was among the 20 groups included in the study. This indicates that nonintegrated practice data may have been concurrently collected in the study group, which conflates the outcomes relative to whether integrated delivery systems are conducive to creating health care value. Finally, it is important to point out that the study was limited to examining only Medicare FFS beneficiaries, another impediment in gauging the efficacy of either integrated delivery systems or large multispecialty practices in facilitating increased health care value under different payment models.

Applications for Clinical Practice

Large multispecialty practices may potentially be an optimal setting to achieve greater health care value. However, it remains to be seen as to whether participation in an integrated delivery system is also a requisite. Whether the majority of large, independent multispecialty practices are equally equipped to deliver lower-cost, higher-quality care relative to their peers remains a question that merits exploration in future studies. Furthermore, given current proposals surrounding inpatient and episodic bundled payment, it

remains unclear whether and how nonintegrated practices could serve as the principal actor in accountable care frameworks.

—Review by Ayal Bitton and Asaf Bitton, MD, MPH

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