The Journal of Arthroplasty xxx (2016) 1–5

Contents lists available at ScienceDirect

The Journal of Arthroplasty

journal homepage: www.arthroplastyjournal.org

Original article

Are the Affordable Care Act Restrictions Warranted? A Contemporary Statewide Analysis of Physician-Owned Hospitals

Daniel K. Lundgren [a, b], Paul M. Courtney, MD [c], Joshua A. Lopez [b], Atul F. Kamath, MD [c, *]

[a] Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania
[b] College of Arts and Sciences, University of Pennsylvania, Philadelphia, Pennsylvania
[c] Department of Orthopaedic Surgery, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

ARTICLE INFO

Article history:
Received 16 December 2015
Received in revised form
19 February 2016
Accepted 22 February 2016
Available online xxx

Keywords:
physician-owned hospital
specialty hospital
access to care
Affordable Care Act
health policy

ABSTRACT

Background: The Affordable Care Act placed a moratorium on physician-owned hospital (POH) expansion. Concern exists that POHs increase costs and target healthier patients. However, limited historical data support these claims and are not weighed against contemporary measures of quality and patient satisfaction. The purpose of this study was to investigate the quality, costs, and efficiency across hospital types.

Methods: One hundred forty-five hospitals in a single state were analyzed: 8 POHs; 16 proprietary hospitals (PHs); and 121 general, full-service acute care hospitals (ACHs). Multiyear data from the Centers for Medicare and Medicaid Services Medicare Cost Report and the statewide Health Care Cost Containment Council were analyzed.

Results: ACHs had a higher percentage of Medicare patients as a share of net patient revenue, with similar Medicare volume. POHs garnered significantly higher patient satisfaction: mean Hospital Consumer Assessment of Healthcare Providers and Systems summary rating was 4.86 (vs PHs: 2.88, ACHs: 3.10; $P = .002$). POHs had higher average total episode spending ($22,799 vs PHs: $18,284, ACHs: $18,856), with only $1435 of total spending on post–acute care (vs PHs: $3867, ACHs: $3378). Medicare spending per beneficiary and Medicare spending per beneficiary performance rates were similar across all hospital types, as were complication and readmission rates related to hip or knee surgery.

Conclusion: POHs had better patient satisfaction, with higher total costs compared to PHs and ACHs. A focus on efficiency, patient satisfaction, and ratio of inpatient-to-post–acute care spending should be weighted carefully in policy decisions that might impact access to quality health care.

Section 6001 of the Patient Protection and Affordable Care Act (ACA) placed a moratorium on the expansion of physician-owned hospitals (POHs) after March 23, 2010. The act also prohibited the construction of new Medicare POHs that were not certified as Medicare providers before December 31, 2010 [1]. This law includes restrictions on the number of new operating rooms, inpatient beds, and procedure rooms. In 2010, Physician Hospitals of America and Texas Spine and Joint Hospital jointly filed a lawsuit that challenged the ACA restrictions on POHs, arguing that they have negative effects on competition, patient choice, and cost of medical care [2]. Although the ACA includes an Expansion Exception Request process that allows POHs that were grandfathered in under the law to expand, only 3 hospitals have had applications approved by the Centers for Medicare and Medicaid Services (CMS) [3]. This process has been criticized for being excessively difficult and onerous.

Proponents of POHs maintain that, by specializing on a limited range of services and concentrating expertise, these hospitals deliver higher quality of care with greater cost-efficiency [4]. It is also argued that physician ownership strengthens the doctor's role as a manager of care, which translates into higher quality [5]. On the opposite side of the debate, critics claim that the stronger financial incentives for physicians with an ownership stake present a conflict of interest that may affect practice patterns. Because

This study was approved by the institutional review board.

One or more of the authors of this paper have disclosed potential or pertinent conflicts of interest, which may include receipt of payment, either direct or indirect, institutional support, or association with an entity in the biomedical field which may be perceived to have potential conflict of interest with this work. For full disclosure statements refer to http://dx.doi.org/10.1016/j.arth.2016.02.051.

* Reprint requests: Atul F. Kamath, MD, Department of Orthopaedic Surgery, Pennsylvania Hospital, Penn Medicine, 800 Spruce Street, 8th Floor Preston, Philadelphia, PA, 19107.

http://dx.doi.org/10.1016/j.arth.2016.02.051
0883-5403/

physician owners earn additional income for hospital services, concern exists that these for-profit institutions lead to increased utilization [6] and therefore higher health care costs. There is fear that POHs disadvantage other hospitals by targeting the most lucrative patients [7], undermining full-service hospitals' ability to cross-subsidize other less profitable community services [8,9]. Indeed, some maintain that POHs only exist in specialties that provide the most profitable reimbursement, such as orthopedic surgery and cardiology [10]. Prior historical research on POHs has been generally unfavorable [11]. However, an important point to highlight is that this negative view of POHs is primarily rooted in studies of physician-owned specialty hospitals and facilities [12].

In a recent and, to date, only systematic review on the topic, Trybou et al [13] found that "the evidence base is surprisingly thin." They noted that the findings from prior empirical studies were inconclusive, calling for more research on the relative advantages and disadvantages of physician-owned facilities. Importantly, the historical data are not weighed against contemporary measures of quality, efficiency, and patient satisfaction. One of the most recent and comprehensive studies comparing POHs and non-POHs found that POHs do not appear to preferentially select the healthiest patients [12]. Furthermore, both hospital types performed equally well with respect to quality of care and efficiency.

This issue has become an important agenda item for legislators. The Patient Access to Higher Quality Health Care Act of 2015 (H.R. 976) calls for a change to the Expansion Exception Request process to allow POHs that are licensed by Medicare to more easily expand their facilities. The bill also calls for hospitals that were in development and/or construction before the ACA restrictions to be grandfathered in under the law [14]. The purpose of this study was to investigate quality of care, costs, and efficiency for all hospitals in a single state, directly comparing POHs to proprietary hospitals (PHs) and general, full-service acute care hospitals (ACHs). Our hypothesis was that contemporary POHs, when compared with PH and ACH counterparts, provide equivalent quality of care and patient satisfaction, while maintaining costs, rates of readmission, and efficiency. This body of research may help guide policymakers in decisions that might impact access to health care.

Methods

Data

Data and information were collected from the CMS, the Medicare Cost Report (MCR), and the Pennsylvania Health Care Cost Containment Council (PHC4) for all hospitals in the state of Pennsylvania. Data were accessed on May 27, 2015. The data were categorized into one of 3 outcome measures: (1) financial characteristics, (2) efficiency, and (3) quality of care. POHs were compared with PHs and ACHs with respect to each metric.

To examine differences in financial characteristics, data on revenue and expenses for fiscal year (FY14) and Medicare volume (FY13) were collected. Medicare spending per beneficiary (MSPB) and spending per episode for CY13 were used to track hospital performance on efficiency. Patient satisfaction Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores for FY14 [15] and complication and readmission rates for FY11-FY13 were used to analyze differences in quality of care. Because all the POHs in the sample provided primarily orthopedic surgery services, hip and knee joint arthroplasty surgery was used across all hospital types to assess differences in Medicare volume, readmission rates, and complication rates. Of note, 3 of the 8 POHs were single-specialty orthopedic hospitals; orthopedic surgery was the only service common to all POHs in the cohort.

Hospital Inclusion-Exclusion Strategy

The 171 hospitals identified in Pennsylvania had operated during some portion of FY14 [16]. Complete data (CMS, MCR, PHC4) were not available for 7 of these hospitals, which were thereby excluded. Data were screened for 164 hospitals with respect to CMS, MCR, and PHC4 information. Of these 164 hospitals, children's hospitals (N = 2), critical access hospitals, and government hospitals (N = 13) were further excluded. This resulted in 149 hospitals retained in the sample and categorized into one of 3 ownership statuses as defined by CMS and/or publicly displayed on the hospital's website [17-20]: POHs (N = 8), PHs (N = 16), and general ACHs (N = 125). Subsequently, 4 of the general ACHs were excluded because they did not provide emergency services. This left 121 general, full-service ACHs for analysis (See Fig. 1 for the complete hospital inclusion-exclusion flow diagram.)

Statistical Methods

Descriptive statistics were calculated for each outcome variable, including financial characteristics, hospital efficiency, and quality of care. Results from POHs were directly compared with those of PHs and general, full-service ACHs. We first tested the assumption that our data were normally distributed using the Shapiro-Wilk test. Primary outcome variables including performance rates, spending, HCAHPS score, readmission rates, and complication rates were found not to be modeled by a normal distribution ($P < .05$); therefore, nonparametric statistical testing was used. Continuous and interval variables between the 3 hospital groups were analyzed using the Kruskal-Wallis test, whereas categorical variables were analyzed using the Mann-Whitney U test. Statistical significance was set at $P < .05$. The power analysis was performed for the parametric 1-way analysis of variance test. Statistical analysis was performed using Excel (Microsoft Corporation, Redmond, WA) and SPSS (International Business Machines, Armonk, NY). We then performed a post hoc power analysis to determine whether our sample size was adequate. Assuming a type I error rate of 0.05 and a standard medium effect size ($f = 0.25$), with a total sample size of 145, our study achieved a power of 0.8.

Results

Financial Characteristics

As presented in Table 1, ACHs had a significantly higher percentage of Medicare patients as a share of net patient revenue (NPR; $P = .03$) than POHs, with similar Medicare volume for joint arthroplasty. Conversely, PHs had lower Medicare volume for joint arthroplasty ($P = .018$) than POHs, with similar Medicare patients as a share of NPR. Both PHs and ACHs had significantly higher Medicaid patients as a share of NPR and percentage of uncompensated care than POHs ($P < .001$). POHs also had significantly higher total margin, ratio of total revenue over expenses to total revenue, for FY14 than both PHs and ACHs ($P = .001$). The average total margin for the past 3 years (FY12-FY14) confirms these data, indicating that the financial health of POHs is significantly better than their PH and ACH competitors. This should be concluded despite the fact that net income in absolute terms is on average higher among ACHs because total margin as a measure of financial health takes into account that POHs are considerably smaller institutions than most ACHs.

Efficiency

Although POHs had significantly higher average total episode spending ($22,799 vs PHs: $18,284, ACHs: $18,865; $P = .002$),