Benefits of High-Volume Medical Oncology Care for Noncurable Pancreatic Adenocarcinoma: A Population-Based Analysis

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ABSTRACT

Background: Although pancreatic adenocarcinoma (PA) surgery performed by high-volume (HV) providers yields better outcomes, volume–outcome relationships are unknown for medical oncologists. This study examined variation in practice and outcomes in noncurative management of PA based on medical oncology provider volume. **Methods:** This population-based cohort study linked administrative healthcare datasets and included nonresected PA from 2005 through 2016. The volume of PA consultations per medical oncology provider per year was divided into quintiles, with HV providers (≥ 16 patients/year) constituting the fifth quintile and low-volume (LV) providers the first to fourth quintiles. Outcomes were receipt of chemotherapy and overall survival (OS). The Brown-Forsythe-Levene (BFL) test for equality of variances was performed to assess outcome variability between provider-volume quintiles. Multivariate regression models were used to examine the association between management by HV provider and outcomes. **Results:** A total of 7,062 patients with noncurable PA consulted with medical oncology providers. Variability was seen in receipt of chemotherapy and median survival based on provider volume (BFL, $P < .001$ for both), with superior 1-year OS for HV providers (30.1%; 95% CI, 27.7%–32.4%) compared with LV providers (19.7%; 95% CI, 18.5%–20.6%) ($P < .001$). After adjustment for age at diagnosis, sex, comorbidity burden, rural residence, income, and diagnosis period, HV provider care was independently associated with higher odds of receiving chemotherapy (odds ratio, 1.19; 95% CI, 1.05–1.34) and with superior OS (hazard ratio, 0.79; 95% CI, 0.74–0.84). **Conclusions:** Significant variation was seen in noncurative management and outcomes of PA based on provider volume, with management by an HV provider being independently associated with superior OS and higher odds of receiving chemotherapy. This information is important to inform disease care pathways and care organization. Cancer care systems could consider increasing the number of HV providers to reduce variation and improve outcomes.

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Background

As medical and surgical therapies advance, cancer care has become increasingly complex. Clinical volume is an important construct in the delivery of specialized care, and provider volume has been associated with improved outcomes of cancer surgery.^{1–3} This finding has impacted policy through implementation of regionalized care networks for surgery.^{4–9}

Beyond surgical therapy, patient volume for non-surgical interventions may be important to consider in the delivery of high-quality cancer care. Increased clinical volume has been associated with higher quality of care and better outcomes in hematologic cancers.^{10–14} However, whether medical oncologists' clinical experience and volume affect patterns of care and outcomes of systemic therapy in solid cancers is unknown. In a review of volume outcome in cancer care, the Institute of Medicine outlined the need to examine volume–outcome relationships in both surgical and medical interventions.¹⁵

Noncurative management of pancreatic adenocarcinoma (PA) represents a good opportunity to study clinical volume and outcomes in systemic therapy. PA is a high-fatality cancer; in 2018, it was the fourth leading cause of cancer-related death in the United States.¹⁶ Most patients present at advanced stages and require palliative-intent management focused on systemic therapy to improve symptoms and survival.¹⁷ The introduction of multiagent systemic regimens with improved efficacy but higher toxicity profiles has increased the complexity of noncurative management of PA.^{18,19} Balancing guidelines that recommend chemotherapy with patient factors such as age or higher comorbidity burden is thus becoming increasingly challenging.¹⁷ Finally, the long-lasting stigma of PA as a fatal cancer with few therapeutic options of limited efficacy may still lead to nihilism-driven care

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delivery, depending on clinical experience. Current management of PA requires more-complex treatment planning and management of toxicities, and familiarity with a high-fatality cancer. All of these considerations may benefit from high-volume (HV) provision of care. We conducted a population-based study to examine the relationship between provider volume and patterns of care and survival in the palliative management of PA.

Methods

Study Design

Using data linked from prospectively maintained administrative databases stored at the Institute for Clinical Evaluative Sciences (ICES) in Ontario, Canada, we conducted a population-based cohort study. Under the Canada Health Act, the Ontario population benefits from universally accessible and publicly funded healthcare through the Ontario Health Insurance Plan (OHIP).²⁰ This study was approved by the Sunnybrook Health Sciences Centre Research Ethics Board and met the data confidentiality and privacy guidelines of ICES.

Data Sources

This study used several linked administrative datasets. The Ontario Cancer Registry includes all patients with a cancer diagnosis in Ontario since 1964²¹; the reliability of the data has previously been reported.^{21–23} The Registered Persons Database (RPDB) contains vital status and demographic data.²² Information regarding health services is included in the Canadian Institute for Health Information (CIHI) Discharge Abstract Database for acute inpatient hospitalizations; the National Ambulatory Care Reporting System for same-day surgery admissions, emergency department visits, and oncology clinic visits; and the OHIP claims database for billing from healthcare providers.²⁴ The Cancer Activity Level Reporting dataset includes chemotherapy and medications administered to patients with cancer. These databases have been validated for a variety of diagnoses and services.²⁴ The datasets were linked using unique encoded identifiers.

Study Population and Cohort

This study was conducted in all patients with a valid OHIP number diagnosed from 2005 to 2016. Patients with a new diagnosis of PA were identified in the Ontario Cancer Registry using ICD-O-3 codes, and we retained only patients who did not undergo curative-intent pancreatectomy (supplemental eTable 1, available with this article at JNCCN.org). Patients were excluded if they died before or on the date of diagnosis, had another cancer diagnosis before or after PA diagnosis, or were aged ≤ 18 or ≥ 99 years at diagnosis. Finally, patients were included if they were seen by a medical oncologist

between diagnosis and end of follow-up (death, last clinical encounter, or end of study as of March 31, 2017), defined using OHIP claims as ≥ 1 encounters with a medical oncologist. Any physician who submitted billing claims for chemotherapy administration codes (G281, G339, G345, G359, G381) during the study period was classified as a medical oncologist.²³

Exposure

The main exposure of interest was the provider volume of each medical oncologist seeing patients in the cohort. Provider volume was the number of new noncurative PA consultations seen per year per provider over the study period. Each patient was assigned to one provider; if a patient saw more than one provider, the provider seen most often was assigned. Patients were divided into quintiles based on the provider volume of their medical oncologist in order to evaluate variability in outcomes across a continuum of provider volume; HV providers were assigned to the fifth quintile (highest), and low-volume (LV) providers were assigned to the first to fourth quintiles.

Covariates

Age and sex were abstracted from the RPDB. Rural living was determined by the postal code of residence.²⁵ Income quintile was based on the median income of a patient's postal code of residence using national census data.^{24,26} The comorbidity burden was measured using the Johns Hopkins Adjusted Clinical Group system score. The 32 aggregated diagnosis groups were summed to create a total score, then dichotomized with a cutoff of 10 for high comorbidity burden, consistent with previous reports.^{27,28} Time period of diagnosis used year of diagnosis, categorized as 2005 through 2010 and 2011 through 2016, to account for temporal changes in management after outcomes of treatment with FOLFIRINOX (leucovorin/fluorouracil/irinotecan/oxaliplatin) and nab-paclitaxel chemotherapy regimens.^{18,19}

Outcome Measures

Receipt of chemotherapy was determined by identifying patients for whom at least 2 chemotherapy infusions were billed from the date of diagnosis to end of follow-up.^{29–31} Overall survival (OS) was measured from date of diagnosis to date of death according to the RPDB. The end of follow-up was defined as the date of death, date of last contact, or March 31, 2017, offering an opportunity for a minimum of 12 months of follow-up for all patients.

Statistical Analysis

Descriptive analyses were used to define baseline characteristics and outcomes. Categorical variables were reported as absolute number and percent, and

continuous variables were reported as mean with SD or median with interquartile range (IQR). Comparison testing was undertaken using the chi-square test for categorical variables and the Kruskal-Wallis or *t* test for continuous variables. Kaplan-Meier methods were used for OS analysis,³² and OS curves were compared between provider volume groups using the log-rank test.

The median proportion of patients receiving chemotherapy and median OS were evaluated across provider volume quintiles to appreciate variability. The Brown-Forsythe-Levene (BFL) test was used to assess for equality of variance across quintile groups to determine whether more variation existed than would be expected by chance alone.³³ Variance was examined to appreciate variation based on provider volume.

Multivariable regression models were constructed to assess the association between provider volume and outcomes. Relevant demographic and clinical characteristics were identified a priori as potential confounders of the relationship between provider volume and outcomes. The variables were selected based on clinical relevance (markers of complexity of cancer care) and existing literature (known relationship with OS for PA). The following covariates were included: age at diagnosis (categorical), sex, comorbidity burden, income quintile, residence (urban vs rural), and diagnosis period (2005–2010 vs 2011–2016). Logistic regression was performed to determine the association between provider volume and receipt of chemotherapy and Cox proportional hazards regression was used to determine the association with survival, and results were reported as main effect adjusted odds ratios and hazard ratios (HRs) with 95% confidence intervals, respectively.

Statistical significance was set at $P \leq .05$. All analyses were conducted using SAS Enterprise Guide 6.1 (SAS Institute Inc).

Results

A total of 7,062 patients with PA who did not undergo resection and saw a medical oncologist were included in the final study cohort (supplemental eFigure 1). Median follow-up was 5 months (IQR, 2.3–10.8 months). Median medical oncology provider volume was 4 patients per year (range, 1–55 patients/year) (supplemental eTable 2). HV (fifth quintile) was defined as consulting on ≥ 16 patients per year (supplemental eTable 3). Overall, 72.3% ($n=5,151$) of patients had ≥ 2 encounters with medical oncology providers, including 71.0% in the LV group and 80.6% in the HV group.

Patients receiving care from HV providers ($n=1,420$) were more likely to be in younger age groups, live in urban areas, and be diagnosed in more recent years (Table 1). Of patients treated by LV providers, 9.2% ($n=475$) also had a consultation with a HV provider after

their diagnosis. Over the study period, 11 (3.1%) of 356 providers were HV providers (Figure 1). Although numbers cannot be reported due to confidentiality and privacy guidelines for managing small cells ($n \leq 6$), no difference was observed in provider demographic, training, or practice characteristics between HV and LV providers.

The median proportion of patients receiving chemotherapy varied across quintiles of provider volume, ranging from 44% in the first quintile to 47% in the fifth quintile (HV). The narrower IQR with increasing provider volume quintiles indicated potential reduction in variation with increasing provider volume (Figure 2). The BFL test showed significant differences in variance across quintiles ($P < .001$). Patients treated by providers in the higher-volume quintiles received chemotherapy for longer periods, with medians of 2.3 months (IQR, 0.6–6.0 months) for the first quintile, 2.4 months (IQR, 0.9–5.8 months) for the second quintile, 3.0 months (IQR, 1.2–7.1 months) for the third quintile, 3.0 months (IQR, 0.9–6.7 months) for the fourth quintile, and 3.7 months (IQR, 1.5–7.9 months) for the fifth quintile ($P < .001$). After adjusting for age, sex, comorbidity burden, income, rural residence, and diagnosis period, care by a HV provider was independently associated with higher odds of receiving chemotherapy (adjusted odds ratio, 1.19; 95% CI, 1.06–1.34). Duration of chemotherapy was longer in the 2011–2016 time period, with median values of 4.9 months (IQR, 1.8–9.2 months) compared with 2.8 months (IQR, 1.4–6.5 months) in 2005–2010 for HV providers and 3.6 months (IQR, 1.3–8.2 months) compared with 2.1 months (IQR, 0.7–4.7 months) in 2005–2010 for LV providers. Care by HV versus LV providers still yielded significantly longer chemotherapy duration in 2011–2016 ($P < .001$).

Median survival also varied across quintiles of provider volume, with superior survival in the fifth quintile (7.5 months) compared with the first to fourth quintiles (4.1–4.9 months) (Figure 3). Evaluation of IQRs showed reduced ranges in higher quintiles, with the inferior border of the fifth quintile IQR (6.6 months) superior to the higher borders of IQRs for the first to fourth quintiles (5.8–6.2 months). The BFL test showed significant differences in variance ($P < .001$). OS was superior for patients seen by HV providers, with 1-year OS of 30.1% (95% CI, 27.7%–32.4%) compared with 19.7% (95% CI, 18.5%–20.6%) for LV providers ($P < .001$) (Figure 4). After adjustment for age at diagnosis, sex, comorbidity burden, income, rural residence, and diagnosis period, receipt of care from a HV provider was independently associated with superior OS (HR, 0.79; 95% CI, 0.74–0.84).

Discussion

In this population-based analysis, we observed a wide distribution in the number of patients with PA seen annually by each medical oncology provider, and

Table 1. Patient Characteristics

	All Providers n (%)	Low-Volume ^a Provider Cohort n (%)	High-Volume ^b Provider Cohort n (%)	P Value
Patients, n	7,062	5,642	1,420	
Age at diagnosis, y				<.001
≤60	1,874 (26.5)	1,427 (25.3)	447 (31.5)	
61–70	2,087 (29.6)	1,625 (28.8)	462 (32.5)	
71–80	2,092 (29.6)	1,726 (30.6)	366 (25.8)	
≥81	1,009 (14.3)	864 (15.3)	145 (10.2)	
Sex				.10
Female	3,375 (47.8)	2,724 (48.3)	651 (45.8)	
Male	3,687 (52.2)	2,918 (51.7)	769 (54.2)	
Residence				.02
Urban	6,136 (86.9)	4,870 (86.4)	1,266 (89.2)	
Rural	926 (13.1)	772 (13.7)	154 (10.8)	
Comorbidity burden				.62
ADG <10	4,705 (66.6)	3,751 (66.5)	954 (67.2)	
ADG ≥10	2,357 (33.4)	1,891 (33.5)	466 (32.8)	
Income quintile				.03
1st, lowest	1,098 (19.4)	243 (17.2)	1,341 (19.0)	
2nd	1,176 (20.8)	302 (21.3)	1,478 (20.9)	
3rd	1,173 (20.8)	263 (18.5)	1,436 (20.3)	
4th	1,153 (20.4)	307 (21.6)	1,460 (20.7)	
5th, highest	1,042 (18.5)	305 (21.5)	1,347 (19.1)	
Diagnosis period				.03
2005–2010	3,333 (47.2)	2,700 (47.9)	633 (44.6)	
2011–2016	3,729 (52.8)	2,942 (52.1)	787 (55.4)	

Abbreviation: ADG, aggregated diagnosis group.

^a<16 patients per year.^b≥16 patients per year.

variation in receipt of chemotherapy and survival based on provider volume. Care by an HV provider (≥16 patients/year) was independently associated with a 20% increase in the odds of receiving chemotherapy. It was also associated with superior OS, with an adjusted HR of 0.79 (95% CI, 0.74–0.84). Although this effect estimate may seem small, the large sample size in this study allowed detection of significant effect. Moreover, the observed differences are similar to the effect estimates observed for systemic therapies now established as standard of care in gastrointestinal oncology.^{19,34–36} The magnitude of the effect is also consistent with the survival differences observed for HV cancer surgery determined using retrospective population data, which have led to policy changes in specialized surgical cancer care.^{1,3}

This study represents an important addition to the literature by providing the first insight into how oncologists' patient volume impacts outcomes among those

with solid cancers. The association of better survival with increased clinical volume has been identified in hematologic oncology within populations and single institutions.^{10,12–14} However, this has not been addressed for nonhematologic cancers at the provider level. The Ontario jurisdiction offered a unique opportunity to study this question, with data on all therapies, consultations, and outcomes reliably available for an entire population.

Systemic therapy for PA is crucial in improving symptoms and survival.^{18,19} Guidelines for palliative management of PA include triplet and doublet therapies in patients with ECOG performance status of 0 to 1 with a favorable comorbidity profile, and single-agent gemcitabine in those with ECOG performance status of 2 or with comorbidities precluding other regimens.^{17,37} Most patients have an indication for systemic therapy. However, across provider volume quintiles, only 44% to 47% of patients with PA received systemic treatment, with

Figure 1. Distribution of providers (n=356) by provider volume (patients seen per year).

increased likelihood of treatment associated with HV providers. Nonreceipt of therapy may be necessary when chemotherapy is not feasible or not aligned with patient preferences. Although we could not decipher decision-making specifics, we adjusted for patient-level characteristics that may influence patient and physician decisions, including age, sex, and comorbidity burden.

Variation in therapy delivery can create inequities in effective care and patient safety.³⁸ Unwarranted variation, referring to the proportion of variation that is explained not by difference in population but rather by quality, appropriateness, and efficiency of healthcare, should therefore be limited.³⁹ Differential availability of resources was not a cause of variation in our study, because both recommendations and universal drug funding for all regimens have been in place since release of the trials. Case mix does not fully explain variations in

Figure 2. Median proportion of patients receiving chemotherapy. Orange line represents the median. Boxes represent interquartile range and vertical lines represent range.

Figure 3. Median overall survival, stratified by provider volume quintile. Orange line represents the median. Boxes represent interquartile range and vertical lines represent range.

care either. However, the role of individual physicians' preferences is a recognized source of variation for medical interventions.⁴⁰ One of the hypothesized main drivers of this variation is misinterpretation or misapplication of evidence and clinical information.⁴¹ Indeed, within a single HV institution, quality of care and survival have been linked to individual providers' experience and volume in the care of lymphoma.¹⁴ Although the indication for systemic therapy is established for PA, the best timing, perception of real-life benefits for a high-fatality malignancy, and appreciation of the risk-benefit balance may not be the same across providers.

HV care was also associated with better survival. We could not fully account for potential referral biases, wherein patients who are more motivated or better performing may seek out HV providers. Importantly,

Figure 4. Overall survival, stratified by receipt of care from low-volume and high-volume providers.

clinical volume is likely associated with access to and enrollment in clinical trials, potentially associated with improved survival. Rather than a confounder, this may be an underlying mechanism of the observed disparity. Indeed, guidelines outline the need for every patient to be offered participation in clinical trials.¹⁷ Volume itself may not produce good or bad outcomes; rather, it may be a proxy measure for other factors, such as experience, processes of care, patient support, and access to clinical trials.^{42,43} Going forward, the ability to structure care delivery to improve outcomes will require an examination of what HV providers do differently, which was beyond the scope of this study.

An organization of care that focuses on HV providers must avoid barriers to access to this service. We focused on provider-level volume so that the results may be actionable within institutions and facilitate care close to home. It is acknowledged that when a volume–outcome relationship exists, the exact threshold is not always clear. We defined high provider volume using quintiles, but other stratifications have been used.⁴² The threshold of 16 patients per year is consistent with thresholds established in surgical cancer care and represents 4 times the median provider volume over the study period.^{1,3} It would be possible to redistribute patient volume to providers within institutions and jurisdictions. The overall number of providers caring for patients with PA would be reduced, but their proportion would be higher than the observed 3%, and HV care could be compatible with provision of care close to home. An example would be disease specialization of oncologists within an institution, and in fact hematologic oncology studies have suggested that disease specialization within institutions is a common denominator of superior outcomes.^{14,44} Moreover, some patients may receive care from LV providers but still have a consultation with an HV provider, which occurred in 9% of patients in the LV group. Assessing the effect of such care delivery was beyond the scope of this study, but this could be further investigated to explore combined care models. Furthermore, other barriers to care access exist beyond provider expertise; in this analysis, only 7,062 of 10,881 diagnosed patients consulted a medical oncologist and were included in the provider-volume analysis. Our team has previously reported on disparities in assessment by medical oncologists and their detrimental effects on opportunity for therapy and on outcomes, which should be addressed to improve outcomes for patients with PA.⁴⁵

Our study has some limitations. This was a retrospective cohort study using healthcare administrative datasets not collected specifically to address the research question, and therefore we did not have access to information regarding race, detailed disease characteristics, and specific chemotherapy regimen details, such as

patterns of metastases or chemotherapy doses. There is a theoretical risk that patients treated by LV providers may have been incorrectly treated with systemic therapy rather than surgery. However, this would favor survival in the LV group. In addition, for reasons detailed previously, our analysis did not address facility-level case volume and focused on provider-level volume and variation. Finally, this analysis was conducted in the setting of publicly funded, universally accessible healthcare, which could impact generalizability to private or semiprivate practice settings. However, previous work has revealed that the attitudes of American and Canadian medical oncologists, respectively working in private and public healthcare systems, do not differ, and both share similar views regarding decision-making for chemotherapy.⁴⁶ Moreover, surgical volume–outcome literature has confirmed similar results in European, American, and Canadian healthcare systems, showing the generalizability of such findings.^{1,4,47}

Conclusions

Significant variation in receipt of chemotherapy and survival in the palliative management of PA was observed in association with provider volume. Care by HV providers was independently associated with higher odds of receiving chemotherapy and superior OS after adjusting for patient-level factors. This information is important to inform disease care pathways and care organization. If consistent volume–outcome relationships are confirmed in future studies, care delivery and system-level interventions may be considered to reduce variation and improve outcomes.

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Benefits of High-Volume Medical Oncology Care for Noncurable Pancreatic Adenocarcinoma: A Population-Based Analysis

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eFigure 1: Flow Diagram of Cohort Creation

eTable 1: Main Variable Definitions Using Ontario Healthcare Databases

eTable 2: Number of Patients, Stratified by Provider Volume

eTable 3: Number of Patients per Provider Volume Quintile

eFigure 1. Flow diagram of cohort creation.

Abbreviation: PA, pancreatic adenocarcinoma.

eTable 1. Main Variable Definitions Using Ontario Healthcare Databases

Variable	Data Source	Code Strategy
Pancreatic adenocarcinoma	OCR	ICD-O-3 topography: C25.0–25.9, and morphology: 8000, 8001, 8010, 8020, 8021, 8031, 8035, 8140, 8144, 8145, 8255, 8340, 8341, 8344, 8440, 8442, 8470, 8481, 8490, 8500, 8560, 8570, 8574, 8575, 9990
Pancreatectomy (exclusion)	CIHI OHIP	Pancreaticoduodenectomy: 1OK87 Total pancreatectomy: 1OK91, 1OJ89, 1OK89 Distal pancreatectomy: 1OJ87 (except for 1OJ87VC) or OHIP codes S300, S299, S309, S301
Age at diagnosis	OCR	—
Sex	RPDB	—
Income quintile	RPDB	Ecologic measure of income ^a
Rural residence	RPDB	Rural index of Ontario ^b
Year of diagnosis	OCR	—
Comorbidity burden	CIHI Discharge Abstract Database CIHI same-day surgery OHIP	ICD codes for Johns Hopkins Adjusted Clinical Groups ^{c,d}
Medical oncology consultation	OHIP	OHIP codes: A445, A130, A131, A135, A615, A446, A435, A655, A845, A136, A616, A443, A133, A613, A441, A611, A444, A134, A614, A448, A138, A618, C445, C845, C446, C443, C444
Medical oncology provider	OHIP	Provider with >1 billing of chemotherapy: OHIP codes G381, G281, G339, G345, G359
Receipt of chemotherapy	OHIP ALR	≥1 cycle of chemotherapy defined as OHIP codes: G381, G281, G339, G345, G359 or ALR drug codes: S1, S17, S24 (counted only once if both ALR and OHIP codes are present)
Death	RPDB	Date of death

Abbreviations: ALR, Cancer Activity Level Reporting; CIHI, Canadian Institute for Health Information; OCR, Ontario Cancer Registry; OHIP, Ontario Health Insurance Plan; RPDB, Registered Persons Database.

^aAlter DA, Naylor CD, Austin P, Tu JV. Effects of socioeconomic status on access to invasive cardiac procedures and on mortality after acute myocardial infarction. *N Engl J Med* 1999;341:1359–1367.

^bDu Plessis V, Beshiri R, Bollman RD, Clemenson H. Definitions of “rural.” Rural and Small Town Canada Analysis Bulletin, 3. Ottawa, Ontario, Canada: Statistics Canada; 2001.

^cReid RJ, Roos NP, MacWilliam L, et al. Assessing population health care need using a claims-based ACG morbidity measure: a validation analysis in the Province of Manitoba. *Health Serv Res* 2002;37:1345–1364.

^dReid RJ, MacWilliam L, Verhulst L, et al. Performance of the ACG case-mix system in two Canadian provinces. *Med Care* 2001;39:86–99.

eTable 2. Number of Patients, Stratified by Provider Volume (N=7,062)

Provider Volume	Patients, n	Percentile
1	51	0.7
2	214	3.7
3	278	7.7
4	402	13.4
5	488	20.3
6	698	30.2
7	707	40.2
8	515	47.5
9	708	57.5
10	224	60.7
11	500	67.8
12	339	72.6
13	271	76.4
14	159	78.6
15	88	79.9
16	94	81.2
17	38	81.8
19	189	84.4
22	226	87.6
23	113	89.2
25	147	91.3
38	269	95.1
49	245	98.6
55	99	100.0

eTable 3. Number of Patients per Provider Volume Quintile (N=7,062)

Provider Volume Quintile	Patients, n	Proportion of Patients (%)	Percentile
1	1,433	20.2	20
2	1,405	19.9	40
3	1,447	20.5	60
4	1,451	20.5	80
5	1,326	18.8	100