

Oncology Site of Care Cost Differences & Solutions

Webinar

Thursday, November 16, 2017

Innovating and Advocating for Community Cancer Care



AGENDA & EDUCATIONAL OBJECTIVES



- Agenda:
 - Welcome & Introductions: Don Sharpe
 - Cost Research Overview: Lucio Gordan, MD
 - Reaction: Ted Okon
 - Discussion and Q&A
- Educational Objectives
 1. To present and discuss a new study released by the Community Oncology Alliance (COA) looking at the Value of Community Oncology.
 2. Evaluate the cost and outcome differences between treating cancer patients in the hospital outpatient setting versus the community-based setting.
 3. Discuss what the study outcomes mean to the cancer community and potential solutions to this concern.



Welcome & Introductions



Lucio Gordan, MD
Medical Director
Division of Quality & Informatics Florida Cancer Specialists & Research Institute



Ted Okon, MBA
Executive Director
Community Oncology Alliance



Don Sharpe
President
OBR
Moderator



The Value of Community Oncology



Lucio Gordan, MD
Medical Director
Division of Quality & Informatics
Florida Cancer Specialists &
Research Institute



Disclosures

- American Oncology Network (AON)
 - Executive Board
- Florida Cancer Specialists
 - Executive Board
- Community Oncology Alliance (COA)
 - Executive Board
- ION/IntrinsiQ (ABSG) consultant
- FLASCO
 - Executive Board
- Myriad Genetics consultant



Site of Care Cost Analysis 2017 The Value of Community Oncology

- Barriers to high-quality cancer care:
 - Limited Oncology Workforce
 - Aging population; retiring physicians; rural settings
 - Access to Affordable Healthcare Coverage
 - Premium increases, disappearance of preferred provider organizations, unavailability of public health exchanges
- Economic Strain:
 - Escalating costs, shifting payment models, practice consolidation, administrative and regulatory challenges



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- **2008-2016 (source: COA Milliman Study)**
 - 121% increase in community-based practice closures
 - 172% increased in **community-based** practice acquisition by **hospitals**
 - Significant increase in volume of chemotherapy claims (Vandervelde 2014)
 - Higher cost of care (Winfield 2017)

- **Mean per member per month cost of care 20-39% lower for those receiving chemotherapy in the community (Hayes 2015)**



Facts & Complexities of Cancer Care

- 2011-2016: 68 new molecules approved with 22 indications
 - 640+ drugs in the pipeline
 - 87% are targeted therapies (small molecules, mAbs, b-mAbs, genetic-based)

- 2004-2013:
 - Mortality rate compound annualized reduction by nearly 2% (France, USA, Japan, Spain, Italy, Germany, UK)
 - Prostate, lung, colorectal, and breast cancer 2-3%

QuintilesIMS, ARK R&D Intelligence, Feb 2017; WHO Cancer Database, Mar 2017; QuintilesIMS Institutes, Mar 2017



Facts & Complexities of Cancer Care

- 2011-2016: Number of patients on continued therapy for melanoma has increased by 2.5 fold
- Duration of lines of therapy in lung cancer
 - 1st line: increased by 50%
 - 2nd line: increased by 15%
 - 3rd line: increased by 50%

QuintilesIMS Institutes, Mar 2017



Facts & Complexities of Cancer Care

- Increased utilization of biomarkers
- Complexity of clinical trials
- COST
 - Cost of new drugs
 - Supportive care
 - Diagnostics
 - **Site of care**

QuintilesIMS Institutes, Mar 2017



Site of Care Cost Analysis 2017 The Value of Community Oncology

- White Paper: September 2017
 - Authors:
 - Marlo Blazer, PharmD, BCOP (XCENDA)
 - Lucio N. Gordan MD (Florida Cancer Specialists)
 - Acknowledgments



Site of Care Cost Analysis 2017 The Value of Community Oncology

- Study Design:
 - Matched analysis of patients treated in the **community** or **hospital** setting for breast, lung and colorectal cancer
 - Evaluation of differences in cost, emergency department (ED), and inpatient care



Site of Care Cost Analysis 2017 The Value of Community Oncology

- Matched Analysis of **community** versus **hospital**-based practice
 - 2:1
 - Cancer type (breast vs colon vs lung)
 - Specific chemotherapy regimen received
 - Receipt of radiation therapy during treatment
 - Presence of metastatic disease (Y/N)
 - Gender
 - Surgery
 - Geographical region: East/Midwest versus South/West



Site of Care Cost Analysis 2017 The Value of Community Oncology

- Data Source:
 - 10% random sample of medical and pharmacy claims – IMS LifeLink database
 - Includes longitudinal, integrated, patient-level medical and pharmaceutical claims for > 80 million patients for 70 health plans
 - Paid and charged amounts
 - 80% commercial, 3% Medicaid, 1.7% Medicare risk, other



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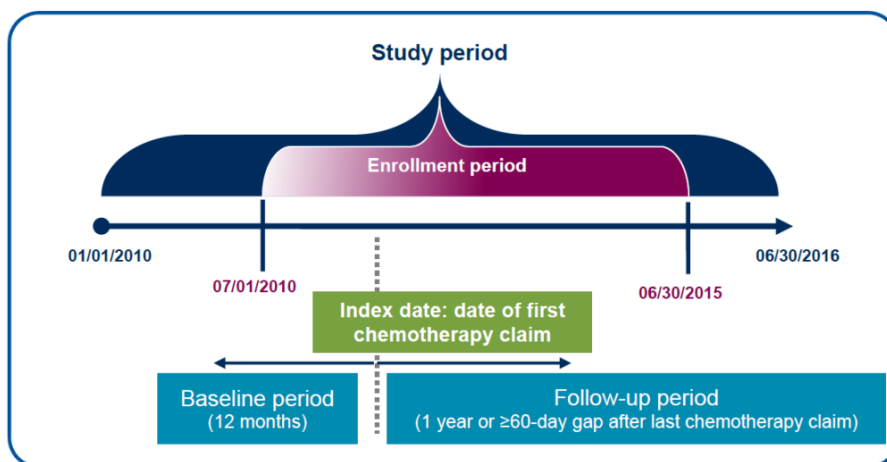
• Sample Selection:

- Patients receiving chemotherapy, radiation, and/or surgery for breast, lung, or colorectal cancer between July 01, 2010 and June 30, 2015
- First date of chemotherapy served as the index date for each patient
 - Required to have continuous eligibility for 6 months in the pre-index period through the end of follow-up
 - Chemotherapy all in the **community** or **hospital**
 - Patients were followed for up to 1 year post-index date or till discontinuation of first-line chemotherapy (60-day period with no record of chemotherapy administration)



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Figure 1. Study Timeline





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- **Outcomes of Interest:**
 - Cost differentials between patients treated in the community clinic vs hospital clinic setting
 - Quality of care outcomes differences
 - Rate of hospitalization within 10 days of chemotherapy visit and ED visits occurring within 72 hours after each chemotherapy visit and within 10 days after each chemotherapy visit.

Results

Table 1. Patient and Disease-related Characteristics of All Matched Patients (N=6,676)

Characteristic	Community Practice (CC Cohort) N=4,450	Hospital-based Clinic (HC Cohort) N=2,225
Female gender, n (%)	3,606 (81%)	1,803 (81%)
Mean age, years (SD)	56 (10)	54.9 (10)
Age group in years, n (%)		
<25	12 (0%)	3 (0%)
25-34	91 (2%)	54 (2%)
35-44	435 (10%)	303 (14%)
45-54	1,418 (32%)	662 (30%)
55-64	1,714 (39%)	885 (40%)
65-74	624 (14%)	261 (12%)
75-84	156 (4%)	57 (3%)
Geographic region, n (%)		
East	898 (20%)	627 (28%)
Midwest	1,716 (39%)	680 (31%)
South	1,584 (36%)	748 (34%)
West	252 (6%)	170 (8%)
Cancer type, n (%)		
Breast	2,996 (68%)	1,498 (68%)
Lung	952 (21%)	476 (21%)
Colorectal	502 (11%)	251 (11%)
Presence of metastatic condition, n (%)	2,468 (55%)	1,234 (55%)
Surgery during pre-index period, n (%)	2,378 (53%)	1,189 (53%)
Radiation treatment during pre-index period, n (%)	667 (15%)	323 (15%)
Surgery during post-index period, n (%)	34 (1%)	16 (1%)
Radiation treatment during post-index period, n (%)	504 (11%)	252 (11%)
Required inpatient service, n (%)	504 (11%)	252 (11%)
Required ED service, n (%)	449 (10%)	292 (13%)
Mean Charlson comorbidity index, n (SD)	4.7 (2.3)	4.8 (2.4)
Mean unique drugs prescribed at baseline, n (SD)	4.4 (3.8)	4.3 (3.7)
Mean chemotherapy agents filled at baseline, n (SD)	7.9 (5.5)	9.1 (6.1)
Mean eligible days at baseline, n (SD)	180 (0)	180 (0)
Mean paid medical cost at baseline, n (SD)	\$4,604.10 (\$4,406.00)	\$5,278.40 (\$4,868.80)
Mean allowed medical cost at baseline, n (SD)	\$5,434.00 (\$4,803.80)	\$6,038.30 (\$5,126.80)
Mean duration of therapy, days (SD)	99.6 (61.0)	95.7 (57.0)
Mean total cycles of treatment, n (SD)	5.2 (4.2)	4.8 (4.4)

Key: ED – emergency department; SD – standard deviation

Results

Table 2. PPM Total Costs in Community Practice vs Hospital-based Practice

	Community Practice N=4,450		Hospital-based Practice N=2,225		P-value
	Mean	SD	Mean	SD	
Mean Total Costs	\$12,548	\$10,507	\$20,060	\$15,502	<0.0001
Total Medical Costs	\$12,103	\$10,504	\$19,471	\$14,559	<0.0001
Chemotherapy	\$4,933	\$4,983	\$8,443	\$10,391	<0.0001
Branded agents only	\$6,674	\$5,046	\$10,900	\$10,712	<0.0001
Generic agents only	\$2,936	\$2,585	\$5,134	\$6,306	<0.0001
Combination regimen ^a	\$11,080	\$5,889	\$19,412	\$13,869	<0.0001
Physician visits	\$765	\$1,607	\$3,316	\$4,399	<0.0001
Radiation	\$1,095	\$4,153	\$1,430	\$4,904	<0.0001
Inpatient	\$1,178	\$6,229	\$1,498	\$7,193	0.0095
ED visits	\$121	\$501	\$168	\$620	<0.0001
Outpatient	\$3,838	\$3,681	\$3,912	\$5,698	<0.0001
Other	\$174	\$2,405	\$704	\$3,353	<0.0001
Total Pharmacy Costs	\$445	\$1,239	\$589	\$1,934	0.2708

^aCombination = chemotherapy regimen contained both branded and generic drugs.

Key: ED – emergency department; PPM – per patient per month; SD – standard deviation.

Results

Table 4. PPM Total Costs in Community vs Hospital-based Practice Settings for Breast, Lung, and Colorectal Patients

	Community Practice N=4,450		Hospital-based Practice N=2,225		P-value
	Mean	SD	Mean	SD	
Breast Cancer Patients	N=2,996		N=1,498		
Mean Total Costs	\$11,599	\$8,129	\$19,279	\$14,358	<0.0001
Total Medical Costs	\$11,139	\$8,139	\$18,667	\$14,403	<0.0001
Chemotherapy	\$4,671	\$4,577	\$8,206	\$9,719	<0.0001
Branded agents only	\$5,608	\$4,273	\$9,279	\$7,805	<0.0001
Generic agents only	\$2,982	\$2,275	\$5,084	\$5,591	<0.0001
Combination regimen ^a	\$11,511	\$5,647	\$21,240	\$13,356	<0.0001
Physician visits	\$820	\$1,813	\$3,499	\$4,564	<0.0001
Radiation	\$378	\$1,305	\$440	\$1,493	0.0561

Results

	Community Practice N=4,450		Hospital-based Practice N=2,225		P-value
	Mean	SD	Mean	SD	
Breast Cancer Patients	N=2,996		N=1,498		
Inpatient	\$735	\$4,230	\$874	\$3,804	0.0415
ED visits	\$120	\$516	\$162	\$638	0.0045
Outpatient	\$4,318	\$3,835	\$4,735	\$6,322	0.2696
Other	\$97	\$718	\$752	\$3,461	<0.0001
Total Pharmacy Costs	\$461	\$1,361	\$612	\$1,699	0.1084

Results

Table 5. Rates of Hospitalizations and ED Visits Among Patients Treated in the Community vs Hospital-based Setting Within 72 Hours and 10 Days of Each Chemotherapy Visit

	Community Practice N=4,450	Hospital-based Practice N=2,225	P-value ^a
72 hours			
ED visits	2.6%	3.6%	0.0055
10 days			
Hospitalizations	7.0%	7.3%	0.6198
ED visits	7.9%	9.8%	0.0022

^aMcNemar's test was used for testing the difference in frequencies.

Key: ED – emergency department.



Site of Care Cost Analysis 2017 The Value of Community Oncology

- **CONCLUSIONS:**

- Validation of previous studies
 - Winfield 2017, Hayes 2015, Fitch 2013, COA study
- Cancer treatment for patients with breast, lung, colorectal cancer treated in **community oncology is:**
 - **\$8,000.00 less expensive PPPM**
 - **Lower costs of chemotherapy and physician visits**
 - **28% less ED visits in 72h post chemotherapy**
 - **18% less ED visits at 10 days post chemotherapy**
 - **Less multiple ED encounters**



Site of Care Cost Analysis 2017 The Value of Community Oncology

- **Our study:**

- Large patient population, randomly selected
- Matched analysis 2:1
- Comorbidity scores were equal
- Breakdown of extensive data by tumor type
- Emergency room visits at 72h and 10 days
- Hospitalization rates



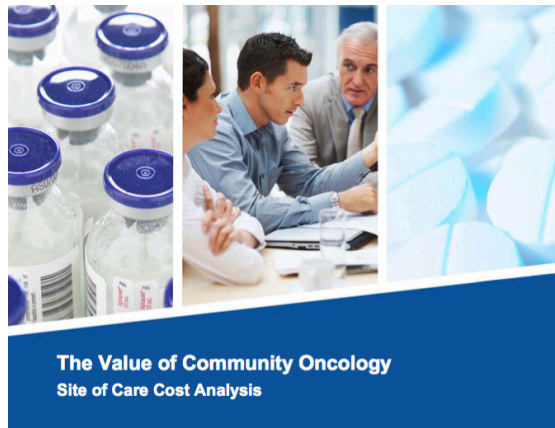
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- **Concerns:**
 - Rapid shift from community-based oncology to **hospital-acquired** practices = explosion of **cost**
 - 2014-2015
 - 75% of acquired **community-oncology** practices by hospitals with 340B drug discount pricing
 - Evidence shows that payers and patients are **paying more** and not **less** in these **hospital-based** settings
 - **REAL** world-data to payers and health systems, oncology workforce, US Congress, and tax payers



Site of Care Cost Analysis 2017 The Value of Community Oncology

- Download the full study at: <http://bit.ly/siteofcarestudy917>





Reaction & Solutions?



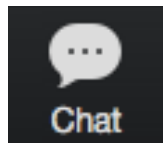
Ted Okon, MBA
Executive Director, Community
Oncology Alliance



Discussion and Q&A



Type your questions into the **chat box** in the
Zoom application!





Thank you!



1. The full research ***The Value of Community Oncology Site of Care Cost Analysis*** is available for download:
 - Online at <http://bit.ly/siteofcarestudy917>
2. Webinar slides and recording will be shared later this week.
 - Look for the email or check out our websites.
3. Stay up to date with the latest oncology policy and news:
 - COA updates & activities www.CommunityOncology.org
 - OBR news, resources, and education www.OBRoncology.com