Impact of Enhanced Reimbursement on Provider Participation in a Cancer Care Quality Program and Adherence to Cancer Treatment Pathways in a Commercial Health Plan

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BACKGROUND

- Payment for treatment planning and care coordination for cancer care in the U.S. has been funded through the margin between the acquisition cost and reimbursement of cancer drugs.
- In the most recent report on the National Practice Benchmark for Oncology (2014 report on 2013 data), it was estimated that 35% of the revenue generated by hematology/oncology physicians is associated with net drug revenue (total drug revenue minus cost of drug) alone.
- On average, there are over 9 full-time equivalent (FTE) staff per FTE hematology/oncology physician.
- This economic reality places a significant financial strain on oncology practices, and has the potential to create misaligned incentives to prescribe more costly oncology treatments, especially in those cases were multiple therapeutic regimens are endorsed by nationally recognized guidelines with tremendously varying costs.
- The Institute of Medicine has called for new payment models to align reimbursement to support patient-centered, high-quality affordable cancer care.

OBJECTIVE

- To assess the feasibility of a novel cancer program in terms of participating practices, registered patients, treatment pathway adherence & administration, and clinical data capture.

METHODS

CANCER CARE QUALITY PROGRAM OVERVIEW

Background

- The Anthem Cancer Care Quality Program was designed to align the practice patterns of physicians, through enhanced reimbursement mechanisms, with nationally acknowledged and peer reviewed guidelines in an effort to promote quality, affordable, and accessible cancer care.
- Participating providers receive an additional $350 per member per month (PMPM) and include when the patient is treated on a regimen included in a cancer treatment pathway.
- Pathways are developed using a rigorous evidence based medicine process that includes a synthesis of evidence from trial publications and national guidelines, and reviewed by external advisors from leading cancer centers and community oncology practices.
- Pathways are a subset of regimens supported by evidence and clinical guidelines and aligned with health plan medical policies. Pathways are intended to be applicable for 80-90% of patients and are selected based on (1) Clinical benefit (efficacy), (2) Side-effects/toxicities (especially those leading to hospitalizations or impact quality of life), (3) Strength of national guideline recommendations, and (4) Cost of regimens and associated supportive care.
- Figure 1 shows comparative data on estimated survival, deaths from adverse events, and cost for six commonly used regimens for non-small cell lung cancer and highlights the four regimens that are included on pathway.

Figure 1. Four Regimens Included in Pathways

	Estimated Survival (months)	Deaths on Rx (Deaths due to Rx)	Cost (4 cycles)
✓ Carbo/Paclitaxel	13.0 (NR) mos.	<1% (<1%)	$452
✓ Gem/Cis	10.4 (9.6-11.2) mos.	7% (1%)	$886
✓ Cis/Pemetrexed	11.8 (10.4-13.2) mos.	7% (1%)	$25,619
Carbo/nab-Paclitaxel	13.1 (NR) mos.	<1% (<1%)	$24,740
✓ Carbo/Paclitaxel/Bev	13.4 (11.9-14.9) mos.	5% (4%)	$39,770
Carbo/Pemetrexed/Bev	12.6 (11.3- 14.0) mos.	**2%	$64,988

This Pathway is specific for patients who do not have mutations such as EGFR, ALK – Pathways are personalized to tumor biology and genomics

If the oncologist or patient determines that a different regimen is better for their unique circumstances, they are still treated according to their preference – Pathway adherence does not impact coverage determination

Source: Socinski JCO 2012; Sandler NEJM 2006:355; Scagliotti JCO 2008:26; Reck Annals of Oncology 2010; Patel 2012

- Practices register members with the Anthem Cancer Care Quality Program by entering data into a web-based platform operated by Anthem subsidiary AIM Specialty Health (Figure 2) and submit data on key clinical parameters including
  - Stage
  - Pathology
  - Biomarkers
  - Planned treatment regimens
  - Performance status
  - Height, weight and body mass index

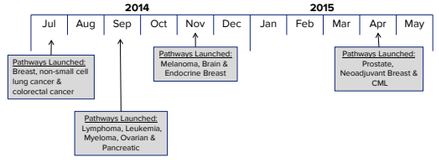
Figure 2. Cancer Care Quality Program Administered by AIM Specialty Health

CLINICAL REQUEST	TREATMENT REVIEW	DECISION RENDERED	PATHWAY ADHERENCE
Request is made by a Provider via the AIM *ProviderPortal*SM	Treatment request reviewed against an evidence-based regimen library for alignment with health plan medical policy for members in that health plan. Anthem's Pathways are based on efficacy - toxicity and cost are also highlighted	Immediate approval is granted if consistent with plan medical policy Clinical experts available as necessary for peer-to-peer discussion Notified if Pathway option available	Practice authorized to bill S0353 and S0354 for ***Treatment Planning and Care Coordination*** when regimen is on pathway Quarterly Analytics and Reporting are available

Cancer Care Quality Program Implementation

- Currently 10 of 14 Anthem health plan states are active in the program, with the remaining 4 states scheduled to begin participation in the 3rd quarter of 2015
- Figure 3 displays the timeline for rollout of the program and pathway regimens for the various cancer types

Figure 3. Anthem Cancer Care Quality Program Rollout



DATA SOURCE

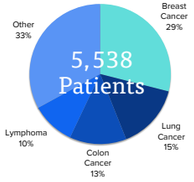
- The results presented below were generated from an integrated database of claims captured from six participating commercial health plans and clinical data captured from participating practices and patients registered under the Cancer Care Quality Program.
- For the participation rates and pathway adherence results, an initial 6 month analysis was performed utilizing the clinical data collected in the program from 7/1/14 to 12/31/14 and claims data from 9/1/2014 to 10/30/2014.
- To provide the most current assessment of patient demographic and clinical characteristics, treatment administration, and regimen distribution analyses, the clinical and integrated claims data was extended to 3/6/15.

STATISTICAL ANALYSES

- Descriptive statistics including means (standard deviation [SD] and median) and absolute/relative frequencies for continuous and categorical data, respectively, were reported.

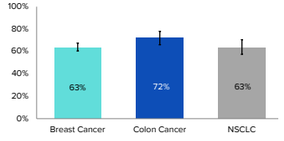
RESULTS

Figure 4. Cancer Type Distribution



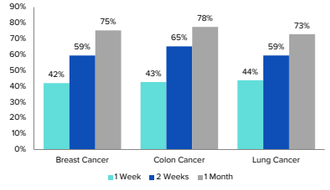
- Between July and December 2014, 616 practices registered 5538 patients in the program, with a mean of 8.7 patients per practice (SD 23.8, range 1 to 275).
- Based on chemotherapy claims for members incurred only from September to October 2014, 64% (95% CI, 62%-65%) of members (n=2,989) were registered with the program
- Among the 330 practices with ≥1 registered patient between September to October 2014 , a mean(SD) of 78.3%(24.2%) patients per practice were registered under the Cancer Care Quality Program.

Figure 5. Initial Pathway Adherence



- Among registered patients, pathway adherence was 63% for breast cancer, 72% for colon cancer, and 63% for non-small cell lung cancer (NSCLC).

Figure 6. Time from Planned Regimen Request to Therapy Administration



- The majority of requests for therapy were delivered within the first two weeks of submission for review.
  - 75% of requests for breast cancer treatment were delivered within the first month
  - 78% of requests for colon cancer treatment were delivered within the first month
  - 73% of requests for lung cancer treatment were delivered within the first month
- The top 5 most frequently requested regiments for breast, colon, and lung cancers were:

Breast Cancer

1. Trastuzumab
2. AC (Doxorubicin and Cyclophosphamide) followed by Paclitaxel
3. TC (Docetaxel and Cyclophosphamide)
4. TCH+P (Docetaxel, Carboplatin, Trastuzumab and Pertuzumab)
5. Paclitaxel

Colon Cancer

1. FOLFOX-6 (Fluorouracil (5-FU), Leucovorin and Oxaliplatin)
2. FOLFOX-6 (Fluorouracil (5-FU), Leucovorin and Oxaliplatin) and Bevacizumab
3. FOLFIRI (Fluorouracil (5-FU), Leucovorin and Irinotecan) and Bevacizumab
4. Capecitabine and Bevacizumab
5. XELOX or CapeOx (Capecitabine and Oxaliplatin) and Bevaxizumab

Lung Cancer

1. Pemetrexed and Carboplatin
2. Carboplatin and Etoposide
3. Pemetrexed
4. Paclitaxel and Carboplatin with Concurrent Radiation Therapy
5. Docetaxel

Table 1. Patient Characteristics

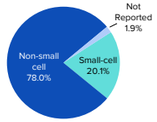
	Breast Cancer	Colon Cancer	Lung Cancer
Age			
Mean (SD)	54.1 (10.3)	56.3 (9.6)	61.4 (8.5)
0 - 17 (%)	0.0%	0.0%	0.0%
18 - 45 (%)	20.3%	14.0%	2.3%
46 - 64 (%)	68.7%	72.4%	66.3%
65 + (%)	11.0%	14.6%	31.5%
Gender			
Male (%)	0.5%	53.8%	48.0%
Female (%)	99.5%	46.2%	52.0%
Weight (lb)			
Mean (SD)	165.5 (41.3)	178.6 (48.4)	165.2 (43.1)
Height (in)			
Mean (SD)	64.3 (2.9)	67.2 (4.1)	66.8 (4.0)
BMI[1] (kg/m²)			
Mean (SD)	28.2 (6.9)	27.8 (6.5)	26.0 (6.3)
0 - 18.4 (%)	3.0%	4.3%	7.0%
18.5 - 24.9 (%)	33.1%	33.3%	39.4%
25.0 - 29.9 (%)	30.2%	33.2%	33.4%
30.0 + (%)	33.8%	29.1%	20.3%
Performance Status			
0 (%)	55.6%	42.4%	30.9%
1 (%)	32.4%	45.1%	51.8%
2 (%)	2.0%	5.2%	9.3%
3 (%)	0.5%	0.5%	1.1%
4 (%)	0.0%	0.2%	0.3%
Unknown	9.5%	6.5%	6.7%

[1](Weight (lb) / (Height (in))²) x 703

- The mean (SD) ages of breast, colon, and lung cancer patients was 54(10), 56(10), and 61(9) years, respectively.
- Across all stages, gender distributions aligned within expectations by cancer type:
  - Almost all (99.5%) breast cancer patients were female.
  - Gender for colon (46.2% female) and lung cancer (52.0% female) was more evenly distributed between males and females.
- The mean (SD) BMI of breast, colon, and lung cancer patients was 28.2(6.9), 27.8(6.5), and 26.0(6.3) years.
- The majority of patients in each cancer group (82.7%-88.0%) had an ECOG performance status of 0 or 1 across all stages.

Figure 7. Pathology

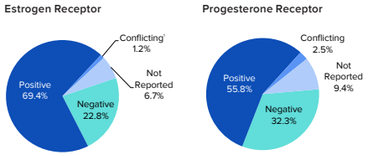
Lung Cancer Pathology

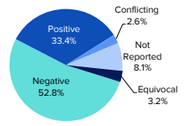


- Pathology results among lung cancer patients demonstrated 78% and 20% with non-small cell and small cell cancers, respectively.
- The overwhelming pathology prevalent among both breast (87%) and colon cancer (92%) patients was adenocarcinoma.

Figure 8. Biomarkers

Breast Cancer Biomarkers



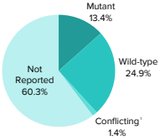


[1]Presence of > 1 biomarker on the index date, the results of which were contradictory

- Estrogen and progesterone receptor biomarkers were available for 93% and 91% of patients, respectively, with the majority of patients indicating positive results for each (69% and 56%, respectively).
- HER2 biomarkers were available among 92% of breast cancer patients, with 53%, 33%, and 3% indicating negative, positive, and equivocal results across all stages, respectively.

Colon Cancer Biomarkers

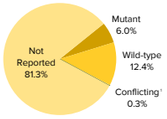
KRAS



- KRAS biomarkers were available among 40% of colon cancer patients, among which 34% and 63% indicated mutant and wild-type results across all stages, respectively.

Lung Cancer Biomarkers

EGFR



- EGFR biomarkers were available among 19% of lung cancer patients, among which 32% and 66% indicated mutant and wild-type results across all stages, respectively.

[1]Presence of > 1 biomarker on the index date, the results of which were contradictory

CONCLUSIONS

- A new payment model that supports quality affordable cancer care through enhanced reimbursement for treatment planning and care coordination when treatment adheres to a cancer treatment pathway is feasible.
- Additional interventions may be needed to increase program participation and pathway adherence.

Poster presentation at the ASCO Annual Meeting, May 29 - June 2, 2015, Chicago, Illinois

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