ACE 2020 Annual Meeting

Oncology Margin Management Strategies

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CONFIDENTIAL

Agenda

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II. Oncology Margin Pressures and Key Strategies

III. Margin Improvement Case Study

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I. Overview

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State of Cancer Care Today

The Cost of Cancer Care **Continues to Rise**

340B Rules Remain in Flux

Community Oncology Alliance Announces **"OCM 2.0" Proposal**

Personalized Medicine Is Redefining Cancer Treatment

Mandatory Radiation Oncology Payment Model on Horizon

Oral Therapies Present New Challenges for Cancer Care Providers

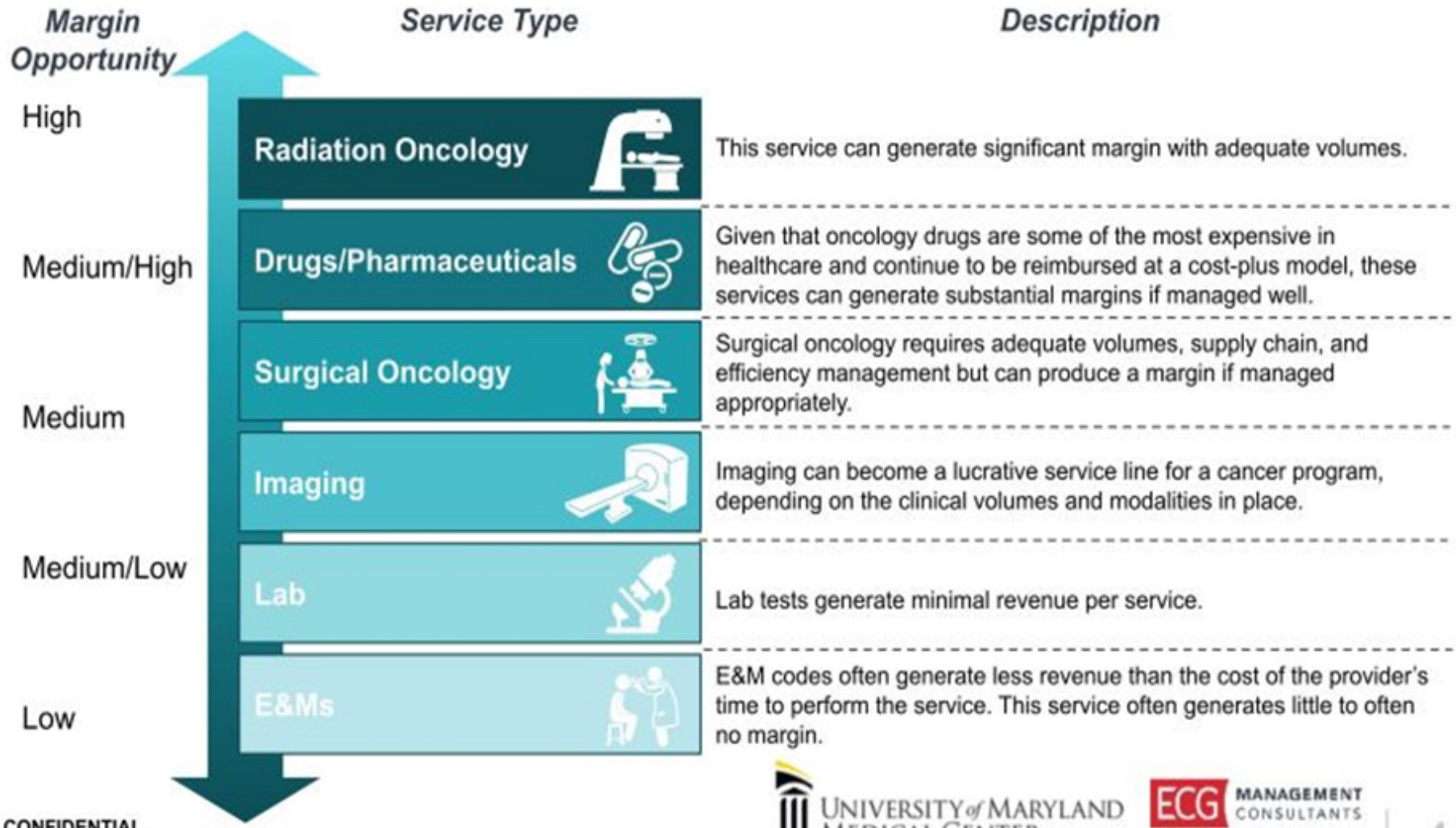
Data Analytics Are Being Utilized to Improve Cancer Care Delivery and Outcomes

1.7 Million Americans Are Diagnosed with Cancer Each Year

I. Overview

Oncology Margin Landscape

In the current oncology environment, margins are driven primarily by therapeutic and diagnostic services.



I. Overview

Primary Economic Drivers of Margin

Each oncology service type typically has one primary economic driver that is the most critical factor to drive financial performance.

Service Type	*Primary Economic Driver*	*Rationale*
Radiation Oncology	Volume	Radiation oncology is a high fixed cost service, primarily due to expensive machinery and equipment. These high fixed costs require significant volumes to drive margin.
Drugs/Pharmaceuticals	Variable Cost	Drugs and pharmaceuticals experience high acquisition costs, and therefore any decrease in variable costs can have a significant effect on margin.
Surgical Oncology	Variable Cost and Volume	Surgical oncology has both high fixed and variable costs. To produce a margin, OR efficiency and volume throughput are critical.
Imaging	Volume	Imaging, similar to radiation oncology, has higher fixed costs from machinery and equipment. Margin is primarily driven from volumes.
Lab	Volume	Lab tests generate lower reimbursement per service than other service types and necessitate high volumes to generate margin.
E&Ms	Loss Leader	Oncology labor expense is often higher than E&M reimbursement.

II. Oncology Margin Pressures and Key Strategies

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Current and Future Pressures

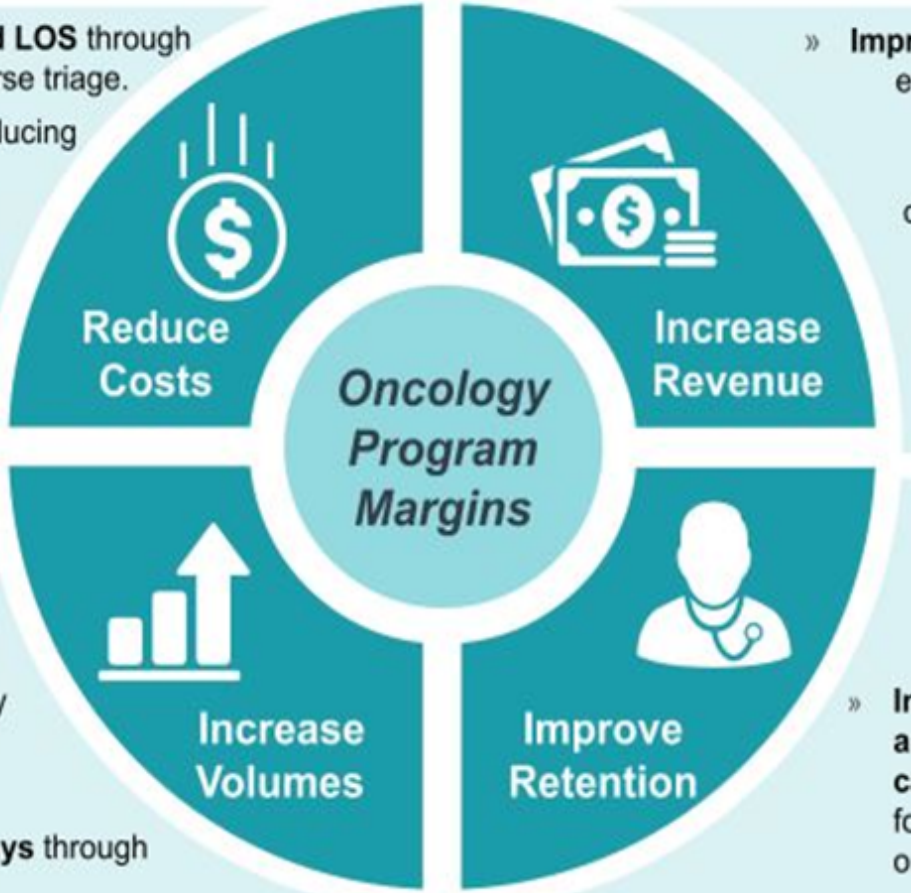
As payors look to focus their efforts in driving down the total cost of care, margin pressures are likely to be the most acute for high-cost therapies.

	Drugs/Pharmaceuticals	Radiation Oncology	Other Services
Current Pressures	 » Reduction of drug reimbursement by commercial and government payers. » The OCM model is aiming to increase financial accountability for episodes of chemo administration.	 Hypofractionation is reducing the number of radiation therapy treatments per patient.	 There is pressure from both commercial and government payers to reduce readmissions and unnecessary imaging scans.
Future Pressures	 » There are uncertainties about the future of the 340B program. » OCM 2.0 could further increase financial accountability for episodes of chemo administration. » The international pricing index would dramatically reduce drug spend.	 The pending mandatory radiation oncology bundle has the potential to significantly decrease radiation treatment reimbursement.	 We can expect the pressure to reduce readmissions and unnecessary imaging scans to continue in new payment models and payer initiatives.

II. Oncology Margin Pressures and Key Strategies

Overview of Improvement Strategies

Top margin improvement strategies are centered on one of four areas: reducing costs, increasing revenue, improving patient retention, and increasing volumes.



- **Reduce readmissions and LOS** through urgent care centers and nurse triage.
- **Decrease drug cost** by reducing drug waste and improving inventory management.
- **Improve physician productivity** by optimizing the use of advanced practitioners and nursing staff.

- **Improve managed care rates** by entering into value-based care arrangements.
- **Work with payors** to demonstrate the total value of care provided.

- **Improve patient access** through reducing the time to diagnose and treat patients.
- **Reduce patient leakage** by increasing alignment with referral networks.
- **Open new referral pathways** through online and digital offerings.

- **Improve the patient experience** by developing disease-specific navigation programs.
- **Increase the available ancillary and supportive care options for patients**—for all care to be offered under one roof.

III. Margin Improvement Case Study

III. Margin Improvement Case Study

Greenebaum Comprehensive Cancer Center – Who We Are

General Demographics	• Inner-city, academic center that is part of a 12 hospital System (four of which have substantial cancer programs treating over 1,000 new patients a year; combined, we treat 1/3 of the newly-diagnosed Maryland cancers each year) • NCI Comprehensive Cancer Center since 2016; but Designated since 2008 • Ranked #16 by *U.S. News and World Report*
Accreditations of Note	• American College of Surgeons certified (general cancer and breast) • 3rd consecutive Magnet designation
Clinical Service Highlights	• Treat nearly 3,000 new cancer cases a year • About 1,400 medical oncology admissions; over 57,000 outpatient visits • Provide Bone Marrow Transplants and CAR-T therapy • Hospital enrolled in 340B program • Planning for a new 200,000 sq. ft., $195 million cancer building to open in 2023
Research and Innovation	• $113 million in research funding; over 280 clinical trials • Home of original pioneering aromatase inhibitor research • Invented Galeterone, initially developed for the treatment of prostate cancers • Invented GammaPod, stereotactic radiotherapy for early-stage breast tumors

III. Margin Improvement Case Study

Greenebaum Comprehensive Cancer Center – Our Structure

Matrixed Organizational Structure

Provider Alignment	• Closed medical staff model: University of Maryland School of Medicine physicians with strong research focus • Mix of practice and hospital-employed Advanced Practice Providers • School of Medicine holds all research and grant funding
Clinical Operations	• Inpatient and clinical care cost centers aligned under nursing leadership • Cancer administration holds all business-related, non-clinical care cost centers and all of radiation oncology and genetic counseling • Ancillary services such as Laboratory, Pharmacy, Imaging, etc. are all separate hospital departments • Ancillary services such as Social Work, Nutrition, etc. are all separate hospital departments but staff are embedded within cancer center clinical operations • Blend of School and Hospital staff working side-by-side

III. Margin Improvement Case Study

Greenebaum Comprehensive Cancer Center – Maryland's Unique Payment Model

Unique Maryland Model

- **Established for Maryland in 1977**. Federal Medicare rules are waived and Maryland follows its own, **Maryland-specific rules**, implemented by a state-based Commission
- The **waiver affects all patients**, regardless of age or Medicare eligibility, when **care is delivered in the hospital**…either the inpatient or co-located outpatient setting. Every payer — whether an individual, Medicare, Medicaid or a private insurer — pays the same charge for the same care. Does not affect physician professional fees, nursing homes, or home care.
- Because of the waiver, hospital services delivered to Medicare patients in Maryland are **paid by at a higher rate** than would be the case without the waiver. The catch is, to keep the waiver, Maryland must slow the rate at which total hospital costs are increasing, and remain below national averages and specified thresholds.
- The goal of the **new waiver (2019) is to simultaneously improve health, quality and affordability with population health integration**. Hospitals are, in effect, capped with a global revenue budget and must care for all patients within that budget. Annual increases to that budget are set by the state commission. The commission simply changes the rates for various procedures throughout the year, so as to keep the hospitals making no more than what they were allowed.

So the emphasis is on COST REDUCTION!

III. Margin Improvement Case Study

Greenebaum Comprehensive Cancer Center – Our Examples of Cost Reduction

1 Reduced Readmissions and LOS

Reduced Readmissions and LOS with investment in 5-person Social Work team at a cost of $600,000, and added nurse liaison to assist in coordinating appointments as patient transitions from inpatient to out patient care

a) Reduced readmissions by five percentage points (15% down to 10%) and an estimated savings of $2 million dollars
b) Reduced LOS rate (observed vs. expected… from .96 down to .92) and an estimated variable costs savings of $1.7 million dollars
c) Challenge: back-fill of those opened beds simply eats back into costs

2 Drug Cost Savings

Drug Cost Savings, anticipate $1-$3 million in savings with an analytic resource cost of roughly $100,000

a) Did deep-dive analysis on total cost of antineoplastics…arm physicians with the cost of what they are prescribing…push them to be realistic in outcome, when discussing with patient
b) Decided to reduce inpatient chemo starts by utilizing outpatient starts under cheaper 340B pricing (patients sometimes kept unnecessarily as inpatients, for social reasons)
c) Working to send oral chemotherapy prescriptions to our own Specialty Pharmacy where we realize the profit, instead of outside company…also provide better service
d) Reduce bureaucratic red tape to open clinical trials faster…where patients can take advantage of free drug. We focused on myeloma and 10 patients can save $1 million in a year

III. Margin Improvement Case Study

Greenebaum Comprehensive Cancer Center – Our Examples of Cost Reduction *(continued)*

3 **Oncology Supportive Care**	Emphasizing palliative/hospice care; establishing palliative outpatient clinic
4 **Molecular Genetics Testing**	Utilizing research facilities to contract with hospital to provide specialized testing at rates much lower than other, third-party, for-profit vendors
5 **Reduction in Denials**	Implemented rigorous and systematic review of denials with routine communication among central business office payer liaisons, pharmacy and practice operations teams
6 **"Repatriation" of Patients**	We work with local hospitals to provide more routine care back in the referring community, after stabilization at our cancer center, so cost can be shared appropriately under our payment model; we implemented formal agreements with those hospitals
7 **Physician Practice At-risk Program**	Hospital currently supports substantial portions of the physicians' salaries with financial subsidy to School of Medicine. We have implemented an at- risk component to part of that support, based on metrics tied to LOS, Readmissions, and other quality metrics
8 **"Evaluation and Treatment" Program to Avoid ED Visits**	Established Nurse Practitioner-led program to triage walk/call-ins and avoid sending them to Emergency Department with additional risk and higher cost

III. Margin Improvement Case Study

Greenebaum Comprehensive Cancer Center – Our Examples of Cost Reduction *(continued)*

9 Lab Utilization Review

a) System establishing lab stewardship committee. Beginning work to identify lab specimen order variability by disease site and utilization review of high cost lab tests
b) Collaborating with lab partners to monitor lab send-outs to third-parties…monitoring in more detail with physician providers to ensure service agreements are established and monitored effectively

10 Radiation Oncology Alignment Across System

a) All Varian machines, all beam-matched
b) All clinical processes and workflows are consistent across all sites with a streamlined management structure operating from academic medical center
c) Share IT services, staff resources for coverage support
d) Reduced linear accelerator service contracts by establishing full-time FTE to do first-line service engineering response
e) Achieved cost reductions from integrating ARIA radiation oncology EMR and treatment planning (reduced computer servers across System and co-located in centralized location)
f) Reduced "Agency" cost for coverage of staff during absences (able to provide remote coverage for treatment planning and physics patient QA)

IV. Long-Term Sustainability

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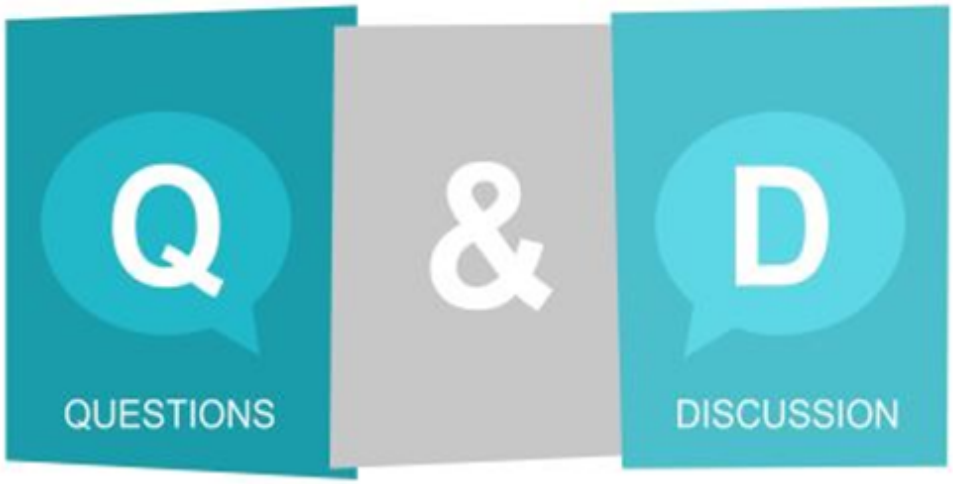
Oncology Margin Management Dashboard

After identifying specific drivers of financial performance, leadership should develop and routinely monitor a dashboard of key operational indicators.

Service Type	Metric	Key Economic Driver	MTD Actual[1]	MTD Benchmark[1]	MTD Variance[1]
Radiation Therapy	Number of radiation therapy treatments per LINAC per day	Volume	25	20	25%
	Number of IMRT treatments per LINAC per day	Volume	18	15	20%
	Average net patient revenue per radiation treatment	Revenue	$3,000	$4,000	-25%
Drugs/ Pharmaceuticals	Number of chemo infusions per medical oncologist per day	Volume	15	10	50%
	Average drug acquisition cost per chemo session	Variable Cost	$5,000	$3,000	67%
	Average discount/rebate per chemo session	Variable Cost	2%	5%	-60%
	Average acquisition cost/average sales price (ASP)	Variable Cost	90%	95%	-6%
	Average margin per drug	Margin	20%	15%	33%
Surgery	Number of cancer surgeries per OR per day	Volume	3	2	50%
	Average net patient revenue per cancer surgery	Revenue	5,000	4,000	25%
	OR utilization	Variable Cost	60%	70%	-14%
Imaging	Number of imaging scans per day	Volume	30	25	20%
	Average net patient revenue per scan	Revenue	$500	$300	67%
Lab	Number of lab tests per day	Volume	50	40	25%
	Average net patient revenue per lab test	Revenue	$50	$40	25%

[1] Numbers indicated are examples only; they do not reflect actual cancer center performance or benchmarks.

V. Questions and Discussion



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