

ABSTRACT: 2013 ELAM Institutional Action Project Poster Symposium

Title: Strategic Plan for Implementing Multidisciplinary Care at the James Graham Brown Cancer Center

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Background: There are several mature multidisciplinary programs (MDPs) at the JGBCC, however, comprehensive multidisciplinary care is not universal, and the return on investment (ROI) of existing programs is unknown. The goal of this project was to assess the present state of our programs in order to develop a strategic plan for implementing additional programs.

Purpose/Objectives:

Aim#1: To develop a MDP in colorectal cancer (CRC) that can be used as a model for developing additional MDPs

Aim #2: To conduct an ROI analysis in order to identify areas of profitability and areas for growth

Methods/Approach:

1. A needs assessment identified a lack of a MDP for CRC. Further assessment identified specific needs in treatment planning, staging, and screening.
2. A ROI analysis was performed for existing programs using patient volumes and financial data (2011 and 2012).

Outcomes and Evaluation:

Aim #1: We identified the following gaps in CRC care and implemented changes:

1. Treatment planning:
 - a. Established a Colorectal Cancer Multidisciplinary Clinic (MDC);
 - b. Added CRC patients to the Multidisciplinary GI conference and put notes in the EHR;
 - c. Assisted in the recruitment of a new GI Radiation Oncologist;
2. Staging:
 - a. Improved access to staging by opening 5 new CT appointments for the day of MDC;
 - b. Improved rectal cancer staging by developing pelvic MRI program;
3. Screening:
 - a. Developed a proposal and budget for CT colonography.

Aim #2: Return on investment analysis:

Per case change	Total Oncology	Breast	GI Colorectal	GYN	Head & Neck	Melanoma	Neurology	Thoracic	Urology
Volume percent change	3%	9%	-9%	14%	-5%	-17%	38%	15%	-18%
Charge percent change	9%	29%	25%	61%	19%	31%	9%	-6%	57%
Payment percent change	-10%	35%	-1%	4%	-29%	16%	9%	-27%	33%
Cost percent change	9%	29%	26%	68%	9%	21%	0%	-5%	48%
Net Revenue percent change	-23%	40%	-14%	-27%	-50%	13%	16%	-38%	19%

1. Volume:
 - a. Greatest: Breast (31%), Thoracic (19%), and GI (11%);
 - b. Greatest increase: Neurology (38%), Thoracic (15%) and Gynecology (14%);
 - c. Greatest decrease: Urology (18%) and Melanoma (17%);
2. Reimbursement:
 - a. Overall decline of 10%;
 - b. Greatest decrease: Head & Neck (29%) and Thoracic (27%);
 - c. Increased charges and costs: Gynecology (61%, 68%);
3. Net revenue:
 - a. Overall decline of 23%;
 - b. Greatest decline: Head & Neck (-50%), Thoracic (-38%), Gynecology (-27%), GI (-14%).

Conclusions/Future Directions: We have successfully established a Multidisciplinary Colorectal Cancer program at the JGBCC and will use this as a model for developing additional programs. The ROI analysis has identified programs that are profitable as well as those that have the potential for growth. Future directions include:

1. To continue to monitor the CRC MDC and follow volumes, financial viability, and trial accrual.
2. To develop a MDP in Urology, because the ROI identified that program as having the most room for growth.
3. To continue to monitor and analyze financial trends to determine factors affecting costs and net revenue.
4. To establish a statewide clinical network for screening, clinical trials, and education.

Strategic Plan for Implementing Multidisciplinary Care at the James Graham Brown Cancer Center

Kelli Bullard Dunn, M.D.

Background/Challenge:

There are several mature multidisciplinary programs at the JGBCC, however, comprehensive multidisciplinary care is not universal. The goal of this project was to assess the present state of multidisciplinary programs at the JGBCC in order to develop a strategic plan for implementing programs across all disease sites.

Purpose / Objectives:

Aim #1: To develop a multidisciplinary program (MDP) in colorectal cancer (CRC) that can be used as a model for developing additional programs.

Aim #2: To conduct a return on investment (ROI) analysis of all multidisciplinary programs in order to identify areas for growth.

Methods / Approach:

1. A needs assessment identified a lack of a MDP for CRC. Further assessment identified specific needs in treatment planning, staging, and screening.
2. An ROI analysis was performed for existing solid tumor programs. This analysis included patient volumes and financial data for services rendered in the JGBCC for 2011 and 2012.

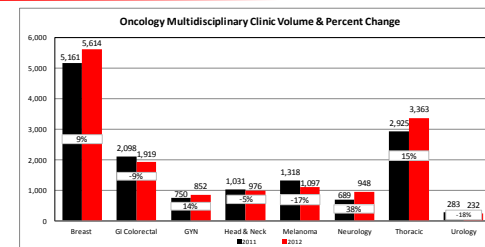
Outcomes / Evaluation:

Aim #1: We identified the following gaps in CRC care and implemented changes:

1. Treatment planning:
 - a. Established a Colorectal Cancer Multidisciplinary Clinic (MDC);
 - b. Added CRC patients to the Multidisciplinary GI conference and put notes in the EHR;
 - c. Assisted in the recruitment of a new GI Radiation Oncologist;
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 - b. Improved rectal cancer staging by developing pelvic MRI program;
3. Screening:
 - a. Developed a proposal and budget for CT colonography.

Aim #2: Return on investment analysis:

Financials (TOTAL) - 2011	Total Oncology	Breast	GI Colorectal	GYN	Head & Neck	Melanoma	Neurology	Thoracic	Urology
Cases	17,380	5,161	2,098	750	1,031	1,318	689	2,925	283
Percent of Total Oncology	-	30%	12%	4%	6%	8%	4%	17%	2%
Charges	\$ 237,077,125	\$ 29,869,721	\$ 30,927,589	\$ 5,241,937	\$ 17,650,848	\$ 12,659,954	\$ 9,114,375	\$ 46,496,737	\$ 1,001,280
Payment	\$ 53,834,660	\$ 6,206,702	\$ 7,434,298	\$ 1,261,113	\$ 4,563,517	\$ 2,988,000	\$ 1,816,985	\$ 11,264,667	\$ 170,407
Cost	\$ 20,812,116	\$ 2,689,433	\$ 2,383,971	\$ 405,811	\$ 1,647,019	\$ 1,093,859	\$ 823,092	\$ 3,944,295	\$ 84,384
Net Revenue	\$ 33,022,544	\$ 3,517,269	\$ 5,050,327	\$ 855,302	\$ 2,916,498	\$ 1,894,141	\$ 993,893	\$ 7,320,372	\$ 86,024
Charge/Case	\$ 13,641	\$ 5,788	\$ 14,741	\$ 6,989	\$ 17,120	\$ 9,605	\$ 13,228	\$ 15,896	\$ 3,538
Payment/Case	\$ 3,098	\$ 1,203	\$ 3,544	\$ 1,681	\$ 4,426	\$ 2,267	\$ 2,637	\$ 3,851	\$ 602
Cost/Case	\$ 1,197	\$ 521	\$ 1,136	\$ 541	\$ 1,597	\$ 830	\$ 1,195	\$ 1,348	\$ 298
Financials (TOTAL) - 2012	Total Oncology	Breast	GI Colorectal	GYN	Head & Neck	Melanoma	Neurology	Thoracic	Urology
Cases	17,953	5,614	1,919	852	976	1,097	948	3,363	232
Percent of Total Oncology	-	31%	11%	5%	5%	6%	5%	19%	1%
Charges	\$ 266,819,821	\$ 41,798,881	\$ 35,267,284	\$ 9,610,962	\$ 19,849,230	\$ 13,792,817	\$ 13,714,777	\$ 50,499,195	\$ 1,289,548
Payment	\$ 49,864,876	\$ 9,122,155	\$ 6,713,569	\$ 1,483,905	\$ 3,088,391	\$ 2,880,661	\$ 2,717,472	\$ 9,508,756	\$ 186,165
Cost	\$ 23,451,408	\$ 3,763,630	\$ 2,754,290	\$ 773,913	\$ 1,698,841	\$ 1,104,709	\$ 1,135,576	\$ 4,289,809	\$ 102,081
Net Revenue	\$ 26,413,468	\$ 5,358,525	\$ 3,959,279	\$ 709,992	\$ 1,389,550	\$ 1,775,952	\$ 1,581,896	\$ 5,218,948	\$ 84,084
Charge/Case	\$ 14,862	\$ 7,445	\$ 18,378	\$ 11,280	\$ 20,337	\$ 12,573	\$ 14,467	\$ 15,016	\$ 5,558
Payment/Case	\$ 2,778	\$ 1,625	\$ 3,498	\$ 1,742	\$ 3,164	\$ 2,626	\$ 2,867	\$ 2,827	\$ 802
Cost/Case	\$ 1,306	\$ 670	\$ 1,435	\$ 908	\$ 1,741	\$ 1,007	\$ 1,198	\$ 1,276	\$ 440
Net Revenue/Case	\$ 1,471	\$ 954	\$ 2,063	\$ 833	\$ 1,424	\$ 1,619	\$ 1,669	\$ 1,552	\$ 362
Per case change	Total Oncology	Breast	GI Colorectal	GYN	Head & Neck	Melanoma	Neurology	Thoracic	Urology
Volume percent change	3%	9%	-9%	14%	-5%	-17%	38%	15%	-18%
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Discussion:

+ The Multidisciplinary Colorectal Cancer Program has been established, and consists of a clinic, conference, and increased access to screening and staging.

+ THE ROI analysis showed that Breast, Thoracic and GI have the greatest patient volume; increase was greatest in Neurology, Thoracic and Gynecology, while decreases occurred in Urology and Melanoma. Overall reimbursement rate had a decline of 10%. The greatest decrease occurred in Head & Neck and Thoracic. Gynecology had an increase in charges and costs per case. Net revenue showed an overall decline of 23%. The largest decline occurred in Head & Neck. Breast had the greatest increase in profit.

Conclusion/Future Directions: We have successfully established a Multidisciplinary Colorectal Cancer program. The ROI analysis has identified programs that are profitable as well as those that have the potential for growth. Future directions include:

1. We plan to continue to monitor the CRC Multidisciplinary Clinic and follow volumes, financial viability, and trial accrual.
2. Urology has the greatest potential for growth and will be the next target for developing a comprehensive multidisciplinary program.
3. We plan to continue to monitor and analyze financial trends to determine factors affecting costs and net revenue.
4. We hope to establish a statewide clinical network for screening, clinical trials, and education.