

Breast Cancer Pathways Impact on Patient Shared Decision Making and Experience in Academic and Community Practice

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Abstract:

Pathways have been implemented in oncology primarily in the effort to reduce variability and cost of care. However, the use of these decision support tools in a manner transparent with patients has the potential to transform patient education and counseling. This may improve patient experience, burden of decision making and quality of life. This project aims to evaluate the impact of chemotherapy education and counseling in breast cancer using pathway-based education and counseling tools. Patients will be informed of the use of pathways, and the reasons for variation from pathway where it occurs. This will be studied in a tertiary referral center and a group of community oncology practices serving diverse urban, suburban and rural populations. This study will occur coincident with implementation of a point-of-care pathway program integrated with the electronic health record in these practices. This will allow for pre-implementation control and post-implementation test groups. The impact of the pathway-based counseling will be assessed using qualitative surveys and quantitative instruments assessing the burden of decision making, decision regret, patient distress and quality of life. Provider acceptance and work flow impact will also be assessed. The findings of this study can be extended to any oncology practice using clinical pathways in breast cancer and to other cancer types.

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I. Overall Goals and Objectives:

The main goals of this novel program are to evaluate the impact of breast cancer pathways on patient experience, burden of decision-making and quality of life. We also aim to identify barriers to adoption and dissemination of breast cancer pathways in a tertiary cancer center and community oncology practices.

Purpose of Pathways – Standardization and Cost Reduction: Forces driving the initial movement towards use of clinical oncology pathways include observed variability in care, rapidly rising cost of care and variation in the use of therapy at the end-of-life. Because of the link with payers and perceived objective to limit treatment choice, pathways often have negative reputations among patients and clinicians. Pathways may assist providers in selecting optimal therapy and managing cost without negatively affecting outcome.^{1,2} The expectation is that pathway use at the point of care will lead to standardization with the most effective and the most cost effective care. This may lower cost of care while maintaining or improving outcome. Data demonstrate lower cost associated with pathway use in treatment of metastatic lung and colon cancer.^{2,3}

However, pathways themselves may not be the primary driver of reduced cost in cancer care programs as they are often used a part of broader programs to improve value and quality. Cost reduction may be primarily attributable to other program. A key example is the Oncology Care Model (OCM), a shared savings model developed by the Centers for Medicare and Medicaid Services (CMS). The OCM requires oncology practice redesign to improve patient access and patient engagement while assuring high quality care. Demonstrating adherence to national standards, best accomplished with pathways, is a required component of the OCM. The OCM and other similar models (e.g. Oncology Medical Home) primarily expect to achieve cost savings through reduced use of emergency room and hospitalization during chemotherapy.

There are limited or no data on direct cost savings in breast cancer care attributable to the use of pathways. Data from programs such as the NCCN Outcomes Database, guideline concordance data collected in the 2000's at Roswell Park Cancer Institute (RPCI), and the preliminary data collected for this application suggest that unwarranted variation in breast cancer care is relatively low. These findings suggest that cost savings as a direct result of the use of breast cancer pathways alone may be limited.

Pathway Use to Enhance Patient Engagement and Experience: Pathway programs generally target the provider and the payer. Some programs implement pathways “behind the scenes” without the knowledge of the patient as part of cost containment programs. Pathway use without patient knowledge actually raises ethical questions, and at the least can lead to patient perceptions that pathways are a means to limit patient autonomy, shared decision-making or access to the most effective therapies.⁴

Pathways used to inform patients could have a substantial positive impact on the patient experience and value related to patient education and burden of decision making. There are no data available to date to assess the actual impact of pathway-driven care from the patient perspective.⁵ Patients starting cancer treatment are presented with a large amount of information, and the time frame for patients to deal with this is relatively short. While pathways have generally been thought of as a decision aid for providers, they may provide a useful tool to help focus and clarify patient decision making and to provide patients with clear information on

the rationale, side effects, and logistics of treatment. Conversely, pathways generally narrow recommendations to one or a small number of treatment choices based on provider and payer determination of the most cost effective and effective “standard of care.” Existing pathways do not account for patient preferences related to side effects, convenience of administration, and cost. This failure to address patient preferences could limit the real or perceived value by patients.⁶ Providers may also be wary of use of these tools.⁷ Therefore, study of the impact of pathways on patients and providers is warranted.

Specific Aims: This project assesses the patient and provider experience using pathways as the central point for shared decision making and education about chemotherapy treatment in breast cancer. The planned implementation of a pathways program in early 2018 at RPCI and its affiliated community practices provides a unique opportunity to study the value of pathways in this domain. Because provider acceptance of pathway programs is vital to success, pathway implementation must also address practice efficiency and demonstrate value to providers.⁸ We hypothesize that a pathway program that is transparent to patients and used as a key element in decision making, care planning and education will reduce the patient burden, improve patient experience and understanding and enrollment in clinical trials. Further, we hypothesize that while providers may view clinical pathways as an upfront time investment they will realize a return in value in patient satisfaction, efficiency in follow-up, and enhanced information on practice patterns and quality.

The specific aims of this project are to:

1. Evaluate the impact of breast cancer pathways on patient experience, burden of decision making and quality of life in tertiary cancer center and community oncology practice.
2. Identify modifiable factors that affect provider adoption of breast cancer pathways in tertiary cancer center and community oncology practice.

II. Current Assessment of Need in the Target Area:

Patients, in general, have limited knowledge of the existence and uses of pathways.^{9,10} A survey of about 900 cancer survivors by the Cancer Support Community (CSC) demonstrated that more than a third (38%) of respondents indicated that they would have liked to have been more involved in decisions about their care and treatment options. Over half (54%) of survey respondents reported not knowing the meaning of the term “clinical practice guidelines.” At the same time, respondents had little (23%) to no awareness (40%) of whether their treatment decision was based on a clinical practice guideline. Similarly, the majority of respondents (73%) had never heard of clinical pathways, and only 23% knew if their treatment was influenced by a pathway.⁹ Another recent national survey of patient cancer care values, the Consumer-Based Care Value Index Survey (CCCVI) demonstrated significant variation representing misalignment of patients’ values and the experience with care.¹¹ The initial report showed that 83% of patients responded that “Feeling like your doctors were up-to-date about your type of cancer and it’s treatment” was extremely important. The same survey found that 76% of patients also highly valued “Having your cancer team clearly explain how cancer and cancer care would affect your daily activities” and 76% said “having your cancer care team explain things in a way you could understand was extremely important”.¹²

The quality of patient information related to chemotherapy treatment, side effects, and resources available during care varies widely. For example, many patients do not receive even a full summary of the treatment planned. This issue led CMS to include enhanced education and a treatment plan as a component of its OCM shared saving payment model.

Local Findings: As at many cancer practices, at RPCI and its community affiliates coordination and standardization of decision support and chemotherapy treatment planning may be less than optimal. Further, the mechanisms to assure that all patients are informed of available clinical trials are less than ideal. Currently in the breast center at RPCI, on the same day that the physician and patient determine the course of treatment, the patient meets with a clinical pharmacist to review the chemotherapy treatment. This interaction focuses primarily on chemotherapy drugs and side effects. Separately, on the day of the first chemotherapy treatment, the patient meets with an education specialist in the infusion center. This interaction focuses on the logistics of the infusion center and practice contact information. At the RPCI Oncology PC offices, the RPCI community affiliate practices, the physician provides counseling on chemotherapy drugs and side effects and printed materials from a variety of sources. On the day of chemotherapy, the nurses in the infusion center provide education about the treatment, logistics, and practice contact information.

Data to support the need for this study include subjective interviews with a Patient Advisory Group empaneled for this project. The need to coordinate information was clearly evident. Further, the group highlighted the need to directly communicate that pathways are used, the recommendation of the pathway, and their personal physician’s recommendation based on their personal circumstances. Further, Press-Ganey patient satisfaction survey data from breast cancer patients at RPCI also indicate that there is a need to improve patient education and outpatient care coordination. RPCI performs above the 95th percentile inpatient care. However, Press-Ganey scores are sub-optimal for outpatient care. RPCI has consistently underperformed for years in the areas of chemotherapy teaching and education in the Breast and Chemotherapy Infusion centers. Compared to eleven other NCI comprehensive cancer centers for the questions “I received an explanation of how to manage chemotherapy side effects” and “I knew what to expect during chemotherapy”, RPCI’s Breast Center ranked in the 24th and 11th percentile, respectively.

RPCI and its affiliates provide care to urban, historically underserved minority and immigrant communities in Buffalo and Niagara Falls, and a variety of suburban and rural areas surrounding Buffalo. Underserved urban and rural populations experience significantly worse health outcomes.¹³⁻¹⁵ Research by the project team showed that rural patients may be overwhelmed by the burden of decision making due to lack of knowledge of cancer services, travel time, caregiver obligations, and employment issues, and limited health literacy.^{16,17}

Pathway Concordance at Participating Practices: The table shows the level of concordance with breast cancer chemotherapy pathways for care in 2016 and 2017 at RPCI and the RPCI Oncology PC is shown in the table, demonstrating room for improvement. Concordance at

Practice Setting	Phase of Care	Number of Cases	Percent Pathway Concordant
RPCI	Adjuvant*	277	90%
	Metastatic	50	93%
RPCI Oncology PC	Adjuvant*	23	95%
	Metastatic	23	73%

RPCI with NCCN guidelines (2003 – 2012) for systemic therapy for Stage I-III breast cancer was 80%. Physicians recommended other treatment in 10% of cases, and patients drove the choice in 10%.

III. Target Audience:

The diverse patient population and the case volumes at the RPCI center and affiliate practices provide the capacity to address the goals of this project. The practices have significant numbers of patients receiving intravenous chemotherapy for breast cancer annually to evaluate the impact of pathways and pathway based patient education on the patient burden of decision making and patient experience. The table shows the numbers of individuals receiving intravenous chemotherapy as adjuvant / neoadjuvant therapy and for metastatic breast cancer over the most recent one year period at each practice setting and the number of medical oncologists at these sites

Practice Setting / Annual Breast Cancer Chemo Case Volume	Number Receiving Chemo	N Medical Oncologists
RPCI	245	4
RPCI Oncology PC	271	7

The primary beneficiaries of this work will be those with breast cancer and cancer centers implementing pathways. Lessons learned and concepts developed in this project will be readily extendable to other cancer types at RPCI, and other cancer providers in academic and community settings. Though the tools for this project will be implemented through oncology pathway software system and the electronic health records at RPCI and RPCI Oncology PC, they should be readily replicated in any pathway and EHR environment.

Project Partners: A multidisciplinary research team has been established for this project. The RPCI team includes experts in breast cancer care from academic and community practice, health services research, patient education and support, and outcomes and quality evaluation. Other collaborators include experts in care organization and decision support research at the University at Buffalo School of Public Health and Health Professions. In addition, the team includes the leader of the behavior and psychosocial research team from the Research Training Institute of the Cancer Support Community bringing those groups expertise in the evaluation of patient experience and quality of life. The commitment of all participating organizations is evident in the letters of support included with this application.

IV. PROJECT DESIGN AND METHODS:

Study Setting: RPCI and RPCI Oncology PC provide a unique setting for this study. This provides multiple practice setting including the tertiary cancer center, its suburban satellite and community practices with a 4-person medical oncology office and three one-physician practices. They serve diverse populations with sufficient numbers of patients for this study.

Roswell Park Cancer Institute (RPCI) initiated a pathway program in 2015 in collaboration with the Moffitt Cancer Center. In the 1st quarter 2018 RPCI will implement the Via Oncology pathway system for use as a decision support tool at the point-of-service in the oncology clinics at RPCI, including the breast center.¹⁸ The program will expand pathways to its community affiliate network in the late 1st quarter 2018. Via Oncology pathways are based on NCCN and other evidence-based guidelines supplemented by expert consensus. The RPCI

pathway program will use the pathway recommendations defined by the Via Oncology multicenter committee with targeted changes by the RPCI multidisciplinary teams. The pathway shows clinical trials open at RPCI to which a patient meets basic eligibility criteria (e.g. an adjuvant therapy trial for patient with a T2N1M0 triple negative cancer) to the provider before they can select standard treatment options. If the trial is not selected, the provider must give a reason for this decision (e.g. patient declined or other).

Study Intervention – Pathway-Based Chemotherapy Education/Counseling:

The study intervention will consist of chemotherapy education and counseling using support materials generated from pathways and complimentary education instruments. This will provide clear transparent review with the patient of the use of pathways and concordance or not with pathway recommendations. Though financial analysis is not a primary objective of this study, it is planned for the RPCI pathway program to complement this study.

Content of Education / Counseling Materials: Patient education materials will be constructed from the information in the Via Oncology system supplemented with existing RPCI education materials. The Table shows the components of the materials. The educational materials were developed using generally accepted principles of adult learning.^{19,20}

Component	Content
Cover Materials	<ul style="list-style-type: none"> • Patient Identifiers • Type of Cancer; Stage of cancer at 1st Diagnosis; Current status of cancer (if metastases); Biomarkers (HER2, ER, PR, Grade) • Pathway-recommended treatment • Physician-recommended treatment • If treatment not pathway concordant, reason for non-concordance • Statement about the pathways program and how it is used.
Cancer Center Information	Full contact information for patient (MD, coordinator; nurses, etc.) Information on how to access during day, evenings, weekends
Care Plan	Detailed treatment care plan.
Chemotherapy Regimen Info	Summary of chemotherapy treatment information developed by RPCI Patient Education Department specific to the chemotherapy.
Symptom Management Guide	A detailed guide to chemotherapy side effects and symptom management – currently under development at RPCI.
Drug Specific Information	Specific information for each drug used in treatment – provided in the Via Oncology pathway system.

A mock-up for a breast cancer patient receiving adjuvant chemotherapy is provided in the Additional Materials include with this application.

Usability Testing: The content and usability of patient education materials and the enhanced chemotherapy education process will be evaluated prior to implementation by collecting qualitative data through usability testing with patients, nurses, pharmacists and providers.

Patient Enrollment and Evaluation:

Patients receiving chemotherapy for breast cancer will be enrolled in the study at the time of their initial chemotherapy teaching. Patients are eligible to participate if treatment includes

intravenous chemotherapy for breast cancer for primary disease as neoadjuvant or adjuvant therapy, or for recurrent and/or metastatic cancer; are female; are 18 years of age or older; can provide consent; are able to comprehend written materials in English or Spanish; and will receive their chemotherapy at RPCI sites in Buffalo or Amherst, NY, or RPCI Oncology PC sites in Niagara Falls, Amherst, West Seneca, or Jamestown NY.

Intervention Workflow – RPCI:

1. After completing the treatment plan discussion with the patient, the Via Oncology pathway information will be completed by the provider. This triggers generation of the education materials.
2. That day the patient will meet with the RPCI care coordinator and the clinical pharmacist in the Breast Center for initial counseling and education. A paper copy of the educational materials will be provided to the patient and posted to the RPCI patient portal. Eligible patients will be informed about this study and consent obtained from those willing to participate in the study survey and instruments.
3. The coordinator will contact the patient for follow-up questions within three business days.
4. A second education and counseling session conducted by Patient Education Department Staff in the infusion center will occur on the day of initial chemotherapy treatment using these same materials. This will include teaching about the logistics of chemotherapy, management of side effects, and access to the practice in case of problems or concerns.

Intervention Workflow – RPCI Oncology PC:

1. After completing the treatment plan discussion with the patient, the Via Oncology pathway information will be completed by the provider. Completion of the pathway care plan will trigger generation of the education and counseling materials.
2. A paper copy of these materials will be provided to the patient and reviewed with the patient by the physician. The materials will be posted to the practice patient portal.
3. At the first chemotherapy visit, the patient education counseling will continue with the chemotherapy nursing staff as per current practice.

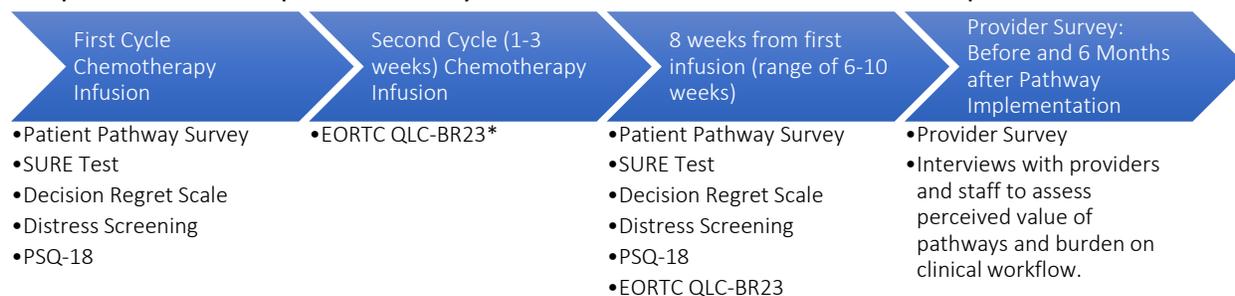
Patient Impact Evaluation: Study patient participants will complete a set of tools to assess knowledge and perceptions about pathway use, and validated tools to assess distress, burden of decision making and decision regret, and quality of life. Initial pilot testing will be done to ascertain the time requirement and other logistical issues. The tools to be used and the rationale for their selection are listed in the table below.

The study instruments will be completed at the infusion center while chemotherapy is being administered. This time was selected to allow standardization of data collection between the RPCI and RPCI Oncology PC practices. While ideally, this would be done before a visit with no other distractions, this could introduce logistical problems, especially at the RPCI Oncology PC offices. The patient will be provided with a computer tablet (iPad or equivalent) for this purpose, and to use for other purposes the patient wants during the chemotherapy visit. If the patient is unable to use the electronic tool, the nurse will provide the patient with paper

instruments to complete. Materials will be provided in English and Spanish. Spanish is the primary language for about 2% of RPCI patients.

Tool	Estimated Completion time	Rationale
RPCI Patient Pathway Questionnaire	2.6 min / 8 questions	Determine the patient’s perceptions of clinical pathways being used to drive care.
SURE Scale Validated? Yes	1 min / 4 questions	The SURE scale assesses decisional conflict. ^{21,22}
Decision Regret Scale Validated? Yes	2 min / 5 questions	Measures "distress or remorse after a [health care] decision," to assess if decisional conflict is affected by use of pathways. ²³
CancerSupportSource (CSS-15). Validated? Yes	5 min / 15 questions	Web-based, validated distress screening tool. ²⁴⁻²⁶
EORTC QLC-BR23 Validated? Yes	9 min / 23 questions	The EORTC QLC-BR23 was chosen over FACT-B for its focus on physical symptoms and function. Emotional well-being is addressed in the CSS-15. ²⁷
Provider Survey	2 min / 8 questions	RPCI generated survey of knowledge and value of pathways and education intervention. A draft survey instrument is included in the Appendix that will be pilot tested during the first quarter of 2018.

The patients will complete the study evaluation instruments at three time points.



[*Administration of the first EORTC QLC-BR23 will be delayed until the second chemotherapy infusion to minimize patient survey burden on the first chemotherapy visit.]

All patients treated at RPCI receive Press Ganey surveys. Breast cancer patients can be identified, but not necessarily those individuals who participate in this study. Scores related to chemotherapy education will be evaluated for the 6 month time frame prior to intervention implementation and for the two consecutive 6 month time periods during the intervention.

Patient Advisory Council: The Patient Advisory Council formed for this grant will review materials prior to implementation, participate in usability testing, and in developing patient messaging related to the use of clinical pathways.

Provider Assessment: Physicians and advanced practice providers will be surveyed for their views, values and needs related to the pathways program, and its impact of practice workflow at two time points: a) Before initiation of the pathways program; and b) 6 months after

initiation of the education program. In addition, key stakeholder interviews (including the clinic and patient education staff) will be conducted to evaluate the impact of the clinical pathway interventions on the work flow and patient-provider communication. Pathway concordance data is collected as part of use of the Via Oncology pathway tool, including reason for non-concordant care where this occurs.

V. Evaluation Design:

We will use the Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) model to inform the project design, evaluation and outcomes (re-aim.org). We recognize that the local need for improved patient education in breast cancer is reflective of a larger national need, and the RE-AIM model is well-suited to assist in the dissemination and implementation of Clinical Pathways as the core of patient treatment planning and education beyond RPCI.

Guided by the RE-AIM model, we will assess our ability to reach our target population by comparing the demographics and disease severity of participating patients with the characteristics of overall patient populations in the participating clinics. We will measure effectiveness of pathways implementation by evaluating patient experience with the educational intervention and the quality of communication with the health team around decisional conflict and regret through the Patient Pathway survey, the SURE scale, the Decision Regret Scale, Quality of Life tool and the Distress Screening surveys, and through provider survey results. We will assess the potential for adoption and implementation by practice staff through the provider survey and qualitative interviews of key staff members, as well as by measuring provider utilization of the pathway tool through a weekly report generated by the Pathways software. To assess maintenance, the study results will provide evidence to support the dissemination of the educational materials and the value of the Clinical Pathway intervention to cancer patients in other disease sites at RPCI and to additional community oncology practices affiliated with RPCI, and well as any additional resources utilization and staff time allocated to delivery of the pathway-guided care. These findings will be used to garner resources to enhance and sustain the implementation of the educational intervention based upon patient and provider feedback, and to create a scalable program available in multiple languages that can be implemented nationally to at least three networks: 1) NCCN participating institutions; 2) Via Oncology customer sites; and 3) oncology practices regardless of size or organizational structure that are participating in the Oncology Care Model. Patients will be studied in two groups:

- a. Control Group: For three months prior to implementation of the intervention with pathway-based education tools.
- b. Intervention Group: For two consecutive six month periods after implementation of the intervention and pathway-based education tools.

Data Evaluation: The evaluation component will include Aim 1: analysis of patient outcomes, and Aim 2: assessment of provider experience, analysis of workflow changes, and analysis of the intervention fidelity and adherence to pathways, resource utilization and costs. Analyses will be performed with a focus on estimation of specific scientifically important parameters for use in the planning of subsequent comparative trials designed to fully assess the study intervention. All statistical tests will be two-sided and tested at a 0.05 nominal significance

level. All statistical tests will be carried out using SAS version 9.4 (or higher) statistical software (Cary, NC).

Aim 1: The practice gap related to coordinated, patient-sensitive educational and support will be assessed using descriptive and quantitative statistics based on response to the survey instruments. These findings will be controlled for patient characteristics including age, race/ethnicity, socioeconomic status, treatment concordance, practice site (RPCI vs. community) and other factors. The Control group data will be collected from the target population for 3-months prior to the intervention implementation. Sample size was determined by the case volume of breast patients receiving chemotherapy over a one year period from July 1, 2016 to June 30, 2017. There were 245 cases at RPCI and 271 cases at the RPCI Oncology PC community sites. Estimating a 60% participation rate, will provide 40 subjects each from both RPCI and community sites for the 3-month control group. For the post-intervention testing interval, the sample size will be up to 160 each from RPCI and community sites for the 12 month time period.

A multilevel regression analysis allowing for clustering of patients within RPCI and its affiliate practice sites will be used to assess the intervention effect (breast cancer clinical pathway program) on mean patient quality of life and quality of decision adjusting for intra-class correlation among patients. Repeated measures analysis will be used adjusting for clustering among patients. This end point makes the 8 week-follow-up post baseline (initial/second chemotherapy appointment) appropriate. Statistical adjustments for incomplete follow-up data will be employed. Multivariate analyses will be used to identify sub-groups based on potential predictive variables (e.g., socio-demographics) to explore differences in outcomes of interest (e.g., quality of life, decision regret).

Aim 2: Provider perceptions will be identified from the pre- and post-implementation survey. Data on health services utilization (e.g., number of physician visits and diagnostics tests) and related costs will be obtained through the RPCI and RPCI Oncology PC electronic medical records and billing systems. Data on the rate of utilization of the pathway system will be determined from billing records identifying those who received chemotherapy for breast cancer matched to those with pathway information. We will consider all costs/utilization (to oncology and non-oncology providers) as the exact reason for a visit cannot be ascertained from administrative data. Longitudinal patterns of pathway adherence, clustered by provider, will be examined using standard logistic mixed models in addition to generalized linear models with a generalized estimating equations approach (GEE) to parameter estimation to identify patient-, provider-, and system-level factors associated with pathway concordance.

Dissemination of Findings: The findings of this study will be disseminated locally through reports to the providers and administration, and to patient advisory committees for this project and for RPCI and its affiliates to allow extension to other cancer types at RPCI, and to local and national payers. The findings will be disseminated nationally through presentation at national meetings such as the Commission on Cancer, the Cancer Patient Education Network, ASCO, the ASCO Quality Symposium, the ASCO Cancer Survivorship Symposium, and through publications in high-impact medical journals and publications across the cancer patient education, advocacy and cancer survivorship communities. The techniques and design of the tools will be clearly presented without charge to allow replication in any system using point-of-care clinical pathways.

VI. Detailed Workplan and Deliverables:

The study will be conducted from January 2018 – December 2019. The figure show the time from project planning, initial development, implementation evaluation and dissemination. Preliminary work in preparation for this study includes the needs assessment including



formation of the patient advisory committee. The Via Oncology system implementation effort began in September 2017 and is on track for “go-live” as outlined above. The RPCI Education Department and other teams are working to refine the education materials and counseling program. The IT effort to incorporate pathways into the EMR’s is underway and on-track.

The table shows the specific work plan and deliverables.

Item	Start Date	Completion Date	Deliverable
Development of intervention materials	1/18	3/18	Materials developed, mechanisms for generating materials at RPCI and RPCI Oncology PC for relevant breast cancer chemotherapy regimens
Survey instruments	1/18	3/18	Completion and pilot feasibility testing of survey instruments; and tools for instrument collection in practices
IRB approval	1/18	3/18	Obtain IRB approval for intervention study
Pre-intervention concordance analysis	1/18	6/18	Conduct and complete pre-intervention retrospective analysis of practice concordance for RPCI and RPCI Oncology PC
Pre-intervention survey	2/18	4/18	Administer instruments to Survey patients prior to intervention implementation
Intervention	5/18	4/19	Conduct intervention
Intervention survey	5/18	7/19	Complete surveys including 2-month post-intervention survey
Provider survey	2/19	4/19	Complete surveys prior to and at end of study
Cost and concordance analyses	7/18	9/19	Conduct cost and concordance evaluation of pre-and post-intervention care at RPCI and RPCI Oncology PC
Analysis and reporting	7/19	10/19	Analyze survey data; Prepare local and national reports and publications

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