Jessica Cintolo-Gonzalez | F in Complex Surgical Oncology at BWH/MGH, PGY 9

Title: Associate Professor of Surgery

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Additional Investigators: None

RESEARCH NARRATIVE

Problem to be addressed: We believe that we can do a better job educating our cancer patients about the surgical process and preparing them for both surgery and recovery. This belief is based on assessment of patient calls with questions before surgery, uncertainties that are expressed in the preoperative holding area prior to procedures, and the questions our practitioners receive following discharge. The objective of this study is to implement and assess our quality improvement initiative, which consists of providing patients of the Division of Surgical Oncology with structured educational materials focusing on each phase of care along their surgical course (preoperative preparation, day of surgery flow, inpatient recovery, discharge process, and recovery at home/aftercare). These sheets encourage patients to ask appropriate questions and also prompt providers to address essential patient-specific information (for example which medications to stop and when, dietary restrictions, and preoperative medications including bowel regimen). We would like to assess the impact of these educational materials on patient knowledge; their perception of being informed both regarding the surgical process and their consent, and patient satisfaction. We also hope to identify ongoing areas that would benefit from improved patient education.

Literature Review: Surgical oncology procedures have become increasingly complex, as have the processes for preparing patients for their transitions in care from preoperative planning to postoperative care and eventual discharge home and aftercare.[1] Disconnect between patient expectations and the realities of surgical processes impact patient satisfaction[2] and affect outcomes[3] whereas focused patient education has the potential to reduce surgical delays and improve patient satisfaction.[1, 4] In particular, patients benefit more from structured education,[5] use of multiple instructive platforms, and reinforced information throughout their clinical course.[6] As such, our intervention consists of structured educational sheets that are meant to communicate key information for each phase of a patient’s clinical course and prompt the engagement of health care providers and patients at each phase of care in order to reinforce their knowledge thereby increasing the comfort level and satisfaction with their care.  


Study Hypothesis: We hypothesize that implementation of our educational materials will help patients to be better informed about their preoperative preparation, the flow of their surgical day, postoperative recovery, discharge process and instructions, and recovery at home. We also hypothesize that this improvement in patient understanding will lead to an overall increase in satisfaction with their care.
Population: We will be studying patients undergoing cancer surgery within Brigham and Women’s Hospital Division of Surgical Oncology.

Description of intervention or study design: We are in the process of creating structured educational materials for the procedures most commonly performed by members of the Division of Surgical Oncology. We are working as part of the BSQUARED Educational Collaborative and in conjunction with the Patient and Family Relations Department at Brigham and Women’s Hospital to assure that materials are at an appropriate reading level and that content addresses the needs of the patients. In order to make sure these materials are easily accessible to providers who will distribute them in clinic and to patients who would like to access them, we are also working with one of our surgical clinical business analysts to make these materials available in EPIC in addition to being available on the Division of Surgical Oncology website. In order to assess the impact of our structured educational materials, we have created a questionnaire that will be distributed by clinical staff to patients at their first postoperative visit at the surgical oncology clinics. The questionnaire consists of multiple-choice questions addressing patient knowledge and understanding of various aspects of the preoperative, consent, admission, postoperative, and discharge processes. We will begin distributing the questionnaire prior to completion of our structured educational materials in order to understand patients’ baseline understanding of these processes and satisfaction with care. We will continue to distribute these questionnaires after implementation of these educational materials. We will tally the responses to these multiple choice questions and compare responses between those patients who did not receive our educational materials and those who did in order to determine whether our educational materials have impacted patient understanding and satisfaction. We will also assess whether age, gender, education level, or primary language have impacted patient understanding and satisfaction. We will use these tallies to identify areas with an ongoing need for improved patient education. We will account for the number of patients to whom the survey is distributed in order to determine response rate. We plan to perform descriptive statistics to analyze responses. This study has already been submitted to the Dana Farber Cancer Institute (DFCI) Institutional Review Board (IRB) and granted Exempt status.

Description of comparison group (if relevant): The responses of those who receive our structured educational materials will be compared with those patients who receive the survey prior to completion and distribution of these materials.

Outcome variable to be used to determine efficacy of the intervention (if relevant): Our primary outcome variable is satisfaction, which will be measured on a Likert scale. Additional outcome variables include patient sense of knowledge surrounding various more specific aspects of their surgical care, which are set up in both Likert scale and in true/false format.

Power analysis to determine feasibility (when relevant): For our primary endpoint of satisfaction, we are using a 5-point likert scale. However, there are additional questions both using the Likert and yes/no format. Given we do not yet know the variability that will exist in responses, we are unsure of how many respondents will be necessary in order to determine a statistically significant difference between the two groups. However, we are aiming to accumulate 50 patients in each group, which should be feasible given the volume of procedures performed within the Division of Surgical Oncology. We believe that this should provide enough information regarding trends in patient satisfaction and knowledge base to identify areas for ongoing improvement in our patient education strategy.

Timeline:

- **September 2016 – November 2016**: Distribute surveys to patients (who have not received the structured educational sheets) at their first postoperative visit at clinics within the Division of Surgical Oncology; finish creating structured educational sheets, obtain approval by the patient and family relations department for distribution; make sheets available on EPIC and the Division of Surgical Oncology website and distribute throughout the Division of Surgical Oncology Clinics
December 2016: Make sure structured educational sheets are available and being distributed to patients at their preoperative visit prior to their surgery

January – March 2016: Distribute surveys to patients (who have received the structured educational sheets) at their first postoperative visit at clinics within the Division of Surgical Oncology; continue to distribute educational sheets to patients at their preoperative visit during this time

April 2016: Data analysis

May 2016: Report on results; make adjustments to educational sheets if indicated based on survey results; identify ongoing areas for improvement in patient education

IRB Status of Project: The protocol has been submitted for IRB.

BUDGET

Line item budget and budget narrative:

- Medical Artist to create illustrations for our structured education sheets: $2701.13
- Adobe Photoshop 1 year subscription: 19.99/month to edit images for education sheets – $239.88*
- SPSS – for statistical analysis 12 month subscription: $58.99
- Total Budget: $3000

*if we determine that we do not need photoshop for successful completion of our sheets, we will invest more in our medical artist to be able to incorporate additional illustrations into our structured educational materials

Disclosure of other funding sources: This grant would augment other funding sources.

LETTERS OF SUPPORTS

PD Name: Chandrajit Raut, MD  Letter of Support Received? yes

Mentor Name: Chandrajit Raut, MD  Letter of Support Received? yes

OTHER

COE Involvement: I have been receiving information from multiple Centers of Expertise. I am looking to become more involved given my interests in healthcare quality and global health.

Previous COE Funding: None