Making Lifestyle Risk Modification an Integral Part of Cancer Survivorship: A QI Project and Call for a Randomized Trial

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BACKGROUND

As a community hospital, we are interested in population health rurally. We serve a population in Eastern North Carolina (ENC) that is particularly vulnerable. We have identified continued risks in our population that increase the incidence of cancers, many of which are lifestyle-related: obesity, smoking, alcohol use, and stress. We have created a model of survivorship that integrates a board-certified physician in Integrative Medicine and Lifestyle Medicine to empower patients to reduce their risk of second cancers. Second cancers in our data analysis occur in 1 to 6 women over time.

PROJECT AIM

Survivorship is a model of cancer care in which the care of the patient forms a continuum, rather than a single point of care. We promote survivorship as a standard of care endorsed by national organizations, including the American College of Surgeons Commission on Cancer. After noting a high incidence of obesity rurally, we added active lifestyle risk assessment and modification as part of a pilot project in 2018 within a sustained model of survivorship for a selected population of breast cancer patients as a QI project.

PROJECT DESIGN/STRATEGY

For this retrospective 4-year review of all known risks for breast cancer performed in our population rurally as baseline data, we identified risks that are inherently biological and therefore mostly unalterable, and those which are potentially modifiable, with the intent to intervene with a model of modification of these risks. Examine all patients with BC over a long period of time to observe trends, and generate a QI plan.

RESULTS/OUTCOMES

Analysis of most common modifiable risks

Use this baseline information as the basis for a model of risk stratification of the population (presented in another abstract) and risk modification to prevent or mitigate future cancers.

Design QI plan for existing BC patients to lower the incidence of second cancers using model for intervention (modify the identified risks).

RESULTS of this are shown in Figures 3a and 3b.

CHANGES made and PROPOSED RANDOMIZED TRIAL

Beginning in 2018, we referred all patients with identified risks to Modifiable Risk Clinic, headed by Integrative Medicine/Lifestyle Medicine physician (CB) (N=64).

All patients offered information about risk reduction, including relative risks based on specific goals (example, BMI reduces risk 10% per 5 BMI). Result from this pilot project are shown below (Results/Outcomes) and form the basis for the proposed randomized trial below.

Beginning in 2021, we plan to formalize this into a randomized study to examine the effects of intervention compared to control group.

LESSONS LEARNED

The majority of risks are predictable, and some are even modifiable, given proper motivation and education.

This pilot study opened our eyes to the fact that our rural community was at an increased risk for BC, and that many of the risks are modifiable.

We found that most women with cancer (affected patients) have several risks that can be modified by lifestyle, given proper education (average number was 4).

We found including this proactively as part of survivorship helped achieve risk reduction in the majority of women with BC, and serves as a great model for other cancer sites. To date, none of these women have experienced second cancers.

NEXT STEPS

Several previous randomized studies have used similar models with different objectives.

1. BWEL is a study looking at incorporation of physical activity and diet into a board model with risk modification and lifestyle intervention. Patients are lifestyle risks modified as part of a pilot project in 2018 within a sustained model of survivorship. Results of this are shown in Figures 3a and 3b.

2. Another study showed exercise had a beneficial impact on survival. As a community hospital, we are interested in population health rurally.

Patients will be recruited from Vidant using our network, and allocated to the trial based on risk stratification, and compared for outcomes that include second cancers, and other secondary gains (improved BMI, improved anthropometrics, reduced diabetes, improved lipid profiles, radiologic exams, QOL measures, etc.)

We propose RRI study with Vidant and then to begin accrual in mid-2021.

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