



Saville Research Internship

Violet Learn

College Park Scholars – Science & Global Change Program
Neuroscience | vlearn1@umd.edu | CPSG230
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Saville

Inova Saville Cancer Screening and Prevention Center is a specialized facility focused on early cancer detection, risk assessment, and prevention. It provides personalized screenings, genetic counseling, and lifestyle management for high-risk and average-risk individuals



Goal: Understand the prevalence of diagnosed mutations and their current management patterns to define gaps in care and where the Saville Center can aid in sharing information and resources for those in need of risk assessment.

Methods:

- 1) Quantify the prevalence of identified carriers of pathogenic variants associated with hereditary cancer syndromes
- 2) Define the history and management overall and comparing those seen in the Saville center with outside of the Saville center (within Inova)
- 3) Use statistical analysis identify gaps in care and areas of improvement in terms of screening, consultations, and dissemination of information in the community

Materials

Excel, Epic Medical



Acknowledgments

Thank you to Stephanie Van Bebber, Dr. Rebecca Kaltman, Dr. Brian, Drs. Holtz & Merck, Dr. Adam Cohen

NCCN

The National Comprehensive Cancer Network is an alliance of 33 leading cancer centers dedicated to improving patient care, conducting research, and providing education. It developed the NCCN Guidelines which are Evidence-based continuously updated guidelines used to guide cancer diagnosis, treatment, and support.

Guideline Example: BRCA1

Breast

- 18: Breast Awareness
- >25: CBE every 6-12 months
- 25-29 Annual MRI or Mammogram
- 30-75: Annual mammogram and MRI
- >75: Individual Basis
- Option of risk reducing mastectomy and risk reducing agents

Pancreatic

- >50: Begin screening

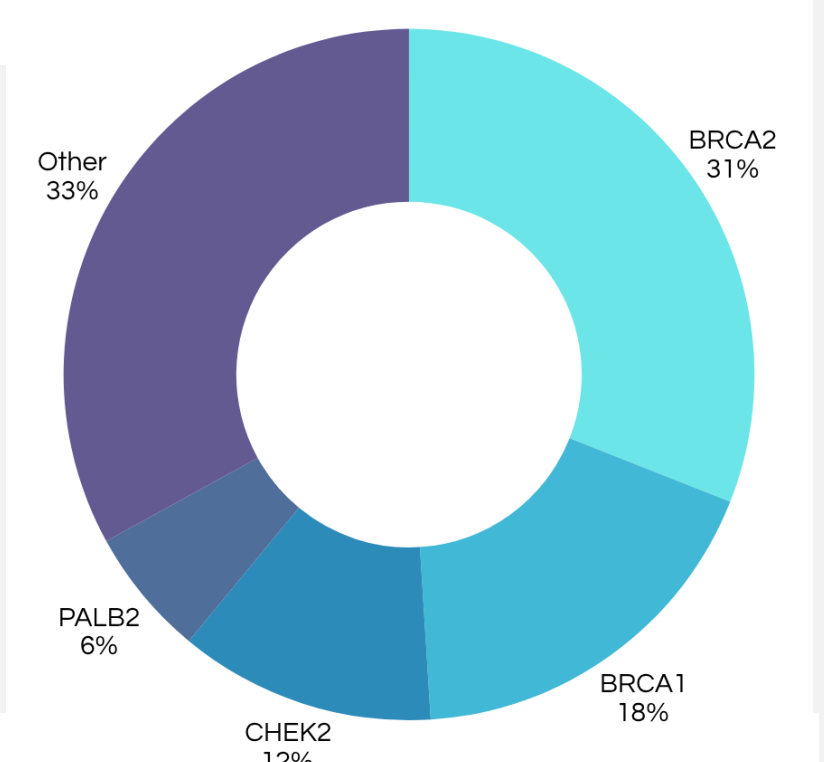
Ovarian

- 35-40: Recommended RRSO
- Risks and benefits of RRSO and hysterectomy
- Patients with no RRSO: transvaginal ultrasound with CA-125 can be considered for screening (though not NCCN guideline)

National Comprehensive Care Network © (NCCN®)

Contributions

- I examined the medical records of 77 patients to determine their pathogenic genetic mutation and the date of diagnosis
- I worked with my team to calculate the frequency of each pathogenic mutation within my data set
- I reviewed NCCN guidelines for the surveillance of BRCA1 gene mutations
- I examined the medical records, specifically office visits, of ~50 patients with the BRCA1 mutation to determine if patients adhered to their management plan
- I described the Surgical history, imaging, procedures, and medications of patients



Gene frequency of 308 patients at Saville

Other aspects of the Internship

- I volunteered on the Screening Bus, assuring access to cancer screening in underserved communities
- I shadowed a variety of physicians at Inova
- I participated in cancer learning sessions taught by a neurooncologist
- I learned about clinical research and different aspects of Saville at a week-long bootcamp

Future Work

The team is currently continuing research remotely. We are finishing the chart review of 2,500+ patients examining the same parameters.

We are in the process of preparing an abstract to present the research at a cancer conference in summer.

