GO-BRCA
Integrated Hereditary Ovarian Cancer Pilot

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Background: Hereditary Cancer Clinic (HCC) Genetic Services, Calgary Zone

- 200 women are diagnosed with ovarian cancer each year in Alberta.
- 15-20% are due to a hereditary cancer gene mutation (majority: BRCA 1 / 2 mutation).
- For every woman with an identified genetic mutation, 2-5 close relatives are at high risk for inheriting the same gene.

Timely identification of a cancer gene can help:
- Guide ovarian cancer treatment,
- Direct screening & prevention strategies for patients and close relatives.

Important to genetic testing is informed consent.

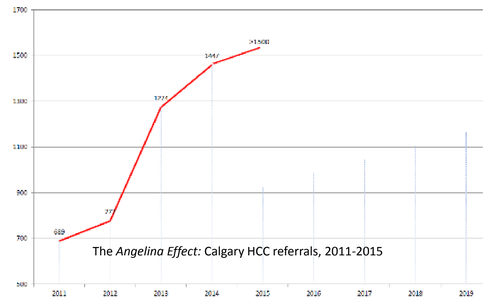
Hereditary Cancer Clinic (HCC) provides HC risk assessment, counselling and genetic testing for individuals affected or at high risk for a hereditary cancer syndrome.

Our Challenge- *Timely Acess to Genetic Testing*

To support informed consent for genetic testing, the traditional HCC model requires pre-test HCC genetic counselling.

Ovarian cancer referrals from the Gyne-Oncology team (GO) would be triaged & wait-listed between 0-12 months; posing an access barrier to timely genetic testing.

This GO-BRCA Pilot was driven by the need to change the existing model & address the exponential growth in HCC referrals with no added resources (*The Angelina Effect).*



The *Angelina Effect:* Calgary HCC referrals, 2011-2015

Our HCC GO Shared Goal

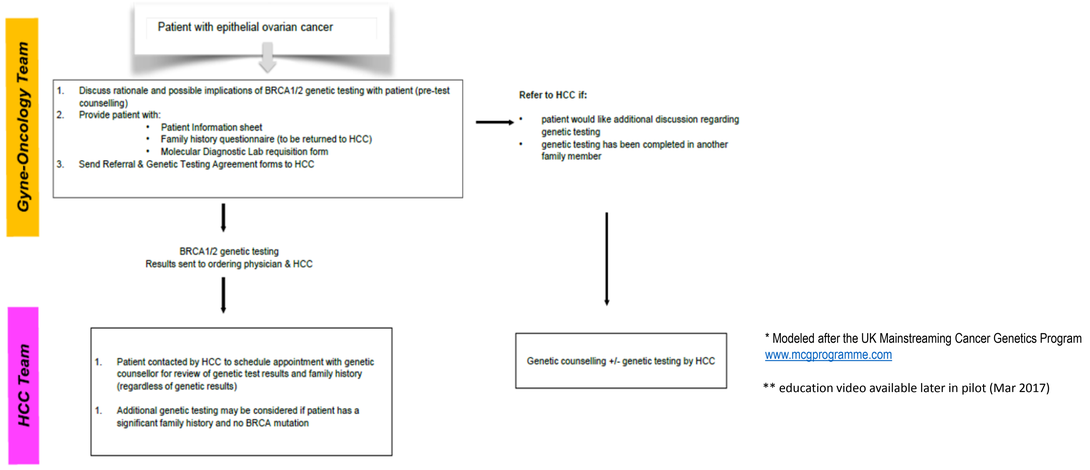
Increase access to timely and seamless genetic testing for *ALL* women with ovarian cancer in Southern Alberta, while maintaining informed consent and patient satisfaction.

Our Shared Solution: GO-BRCA Integrated Model* (piloted: Jan 2016-Mar 2017)

The GO-BRCA model transfers pre-test information & genetic testing tasks to the GO team.

Result disclosure, by telephone or 1:1 genetic counselling, remains with HCC.

To support success:
- Physician package & in-service training was provided to the GO team.
- Augmented patient materials, including an educational brochure & a 5 minute video**, was provided on a tablet at the patient's GO appointment.



* Modeled after the UK Mainstreaming Cancer Genetics Program www.mcgprogramme.com

** education video available later in pilot (Mar 2017)

Outcomes

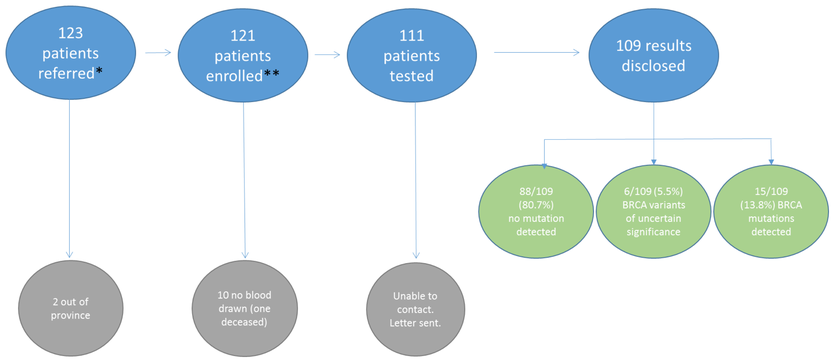
1. Improved collaboration and coordinated care.
2. Satisfaction and acceptability of GO-BRCA model from both the patients and the GO team.
3. Timely access to genetic testing for all ovarian cancer patients.
4. Improved HCC capacity.
5. Enhanced competencies of oncologists and nurses to provide genetic testing within their medical setting; optimizing their scope of practice.

As measured by:

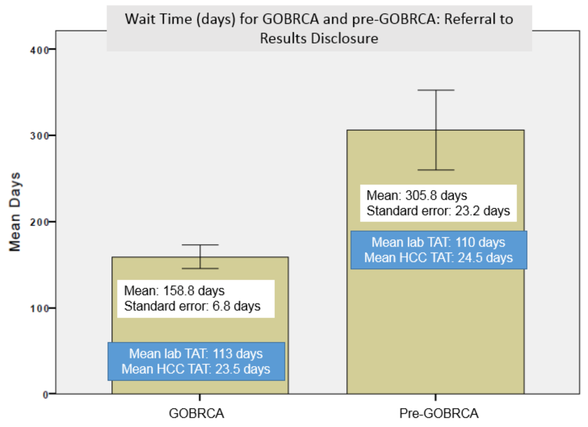
- Pre & Post-Pilot Surveys
- Comparison of time from HCC referral to results disclosure between a pre-GO-BRCA cohort (N = 60) and study group.
- Number of pre-test HCC appointments no longer required.

FINDINGS

Number of Patients Enrolled in GOBRCA Pilot Project
(January 2016-March 2017)



*13 (15%) were previously referred **59 (49%) were new diagnoses



Successes, Limitations & Challenges

- GO BRCA model reduced wait time to genetic testing results, from a mean of 305 to 158 days, while supporting patient expectations, informed choice and building GO team competencies. Lab turnaround time was beyond the scope/control of pilot.
- Over 100 hours of HCC appointment times freed for other referrals.
- Success contributed to small and motivated teams & dedicated pilot funding for resource support.
- Challenge of adding additional complex genetic testing discussion in an already busy GO clinic.
- Assumption that all women with ovarian cancer were included given TBCC GO team's catchment.

Next Steps & Vision for the Future

- This model is now standard of care for ovarian cancer patients in Calgary.
- In February 2017, a "Provincial 13-Gene Breast/Ovarian Cancer Gene Panel" was launched by Genetic Lab Services.
- In June 2017, the GO team received an education in-service and GO-BRCA was expanded to include the full panel.
- Expansion to selected breast cancer patients (e.g. < 35 yr; triple negative) is under discussion.
- The model opens opportunities to expand provincially and to other genetic conditions.

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