Oregon Primary Care Providers' Knowledge, Attitude, and Use of Cancer Genetic Testing

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Background

Primary care providers (PCPs) are on the front line for determining whether patients are at high risk for chronic disease. Using personal and family history to evaluate a patient's genetic risk for chronic disease, PCPs can prescribe steps that can be taken to delay or prevent disease and promote health, such as enhanced screening, genetic testing, or consultation with a genetics specialist.

Objectives

Evaluate Oregon PCPs' knowledge, attitudes, and use of clinical genetic services and genetic testing for breast, ovarian, and colorectal cancers.

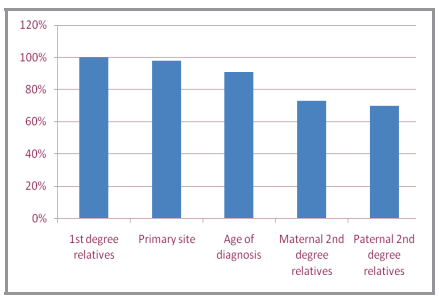
Methods

A quantitative survey was developed, piloted, and administered to a representative sample of Oregon PCPs, including MDs, DOs, NPs, and PAs. The survey asked questions related to their use of family history for risk assessment, prevention, screening, genetic testing, and referral to clinical genetics specialists

Results

Three hundred sixty-five surveys from PCPs were analyzed (57.4% response rate). Results show that 99.5% ask about family history of cancer risk, and of those, over 90% ask about first degree relatives, age of diagnosis, and primary site (Figure 1). Figure 2 shows the decision making process of PCPs when they suspect a BRCA mutation in a patient without breast or ovarian cancer (BOC). Almost half of PCPs refer to clinical genetic services for BOC. Among those who do not refer for genetic services, almost half report that one reason for not referring is because of cost or the referral is not covered by insurance. Among PCPs who recommend or order genetic testing, the practice guidelines most used are US Preventative Services Task Force (USPSTF) followed by American Academy of Family Practice and American Cancer Society (Figure 3).

Figure 1:
PCP cancer risk assessment using family history



N=362
99.5% of PCPs ask about family medical history of cancer

Figure 2:
PCP decision making when a BRCA mutation is suspected

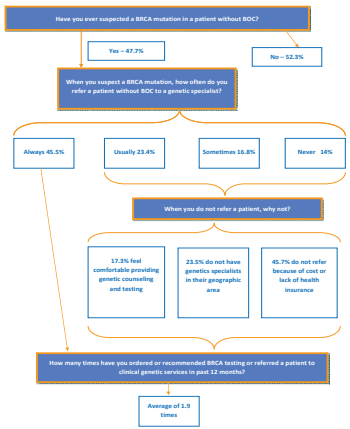


Figure 3:
Practice guidelines used by PCPs for ordering or recommending cancer genetic testing for asymptomatic patients

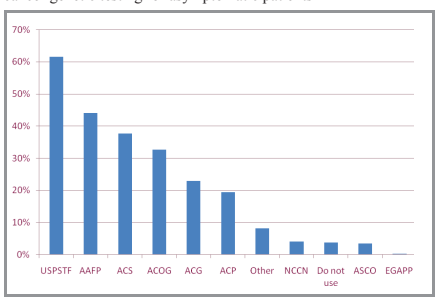


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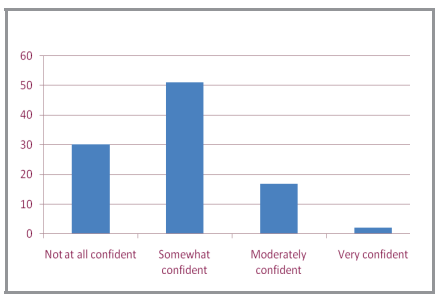
Figure 4:
PCP confidence in knowledge of BOC and CRC medical genetics



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Conclusions

- When assessing risk for hereditary cancer, almost all Oregon PCPs ask about first degree relatives, primary site, and age of diagnosis of cancer, and most ask about both maternal and paternal second degree relatives.
- Oregon PCPs use a variety of practice guidelines to help decide whether to order or recommend cancer genetic testing for asymptomatic patients; most use USPSTF guidelines.
- Only about 20% of PCPs feel moderately or very confident in their knowledge of medical genetics for BOC and colorectal cancer (CRC) (Figure 4).

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