Resource impact statement

Resource impact
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The guideline covers adults with a genetic risk of having a pathogenic variant associated with ovarian cancer (familial ovarian cancer).

The guideline has identified people with Ashkenazi or Sephardic Jewish or Greenlander family backgrounds as being at a higher risk of carrying a pathogenic variant. The number of people in England with Ashkenazi or Sephardic Jewish or Greenlander family background is estimated to be around 270,000. Studies reviewed by the guidance committee showed that population-level testing for pathogenic variants associated with ovarian cancer is cost effective in these groups.

The number of people in England who may be eligible for genetic testing and counselling who have had no previous cancer but have a relative who has had cancer but their relative is unavailable for genetic testing is uncertain. Using some data that is available on the lifetime risk of having breast or ovarian cancer, the prevalence of pathogenic variants in the general population and some reasonable estimates, the population has been calculated to be between 140,000 and 700,000 in England. The sources of data used, and estimates made, are detailed in the resource impact template.

Recommendations/areas which may require additional resources and result in additional costs include:

- Population-level testing for people from Ashkenazi and Sephardic Jewish and Greenlander family backgrounds **(recommendations 1.4.4)**. People from these family backgrounds should be offered genetic counselling and testing even if the person has no family or personal history of ovarian cancer.

  Around 30,000 (11%) of the Jewish populations know their own BRCA status already so this recommendation will require around an additional 240,000 tests and referrals to counselling. There is currently a 3-year NHS England testing programme for BRCA screening in Jewish populations. This is a new programme and there may be some additional capacity used in the private sector to support the programme. The impact of this testing will have a disproportionate geographical spread because up to two thirds of British Jewish people live in the greater London area. Some cancer alliances may not see a significant resource impact implementing this recommendation at all, while some alliances will have a significant impact.

- An increase in people being offered genetic counselling and testing at a lower than 10% probability of having a pathogenic variant **(recommendation 1.4.1 and table 2)**. Estimating the population for this recommendation has proved challenging but it is calculated to be between 140,000 and 700,000. Unlike the population-level testing for Jewish and Greenlander populations, this population is expected to be evenly distributed throughout England.

NICE recognises the challenge associated with implementing these recommendations. At the upper estimate of the eligible population, this would result in up to 940,000 additional referrals to genetic counselling and testing services in England, although there may be some overlap between the 2 population groups, with each requiring 2 appointments. To reflect this challenge, the resource impact template allows users to model implementation of the recommendations over up to 10 years instead of the usual 5. There may also be an impact on primary care resulting from people becoming aware of their potential risk for carrying a pathogenic variant and contacting their GP as a route into genomic services.

Implementing the guideline may:

- Reduce the incidence of ovarian cancer in England by better identifying people with high risk of the disease and increasing the uptake of risk-reducing surgery in people with high risk.

Reducing the incidence of ovarian cancer would reduce the cost to the NHS of treating ovarian cancer and extend the lives of people who would have otherwise had ovarian cancer.

Genetic testing and counselling services are commissioned by NHS England. Providers are genetic testing services, primary and secondary care.