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Introduction/Background The current approach to genetic-testing and risk assessment is based on family-history and misses the majority of people at risk. Unselected population-based testing can enable personalised ovarian cancer (OC) risk prediction combining genetic/epidemiology/hormonal data. This permits population risk stratification for risk adapted targeted screening and prevention. Such an intervention study has not previously been undertaken. We aimed to assess the feasibility of OC risk stratification of general population women using a personalised OC risk tool followed by risk management.


Results In total, 123 volunteers (mean age = 48.5 (SD = 15.4) years) used the decision aid, 105 (85%) consented. None fulfilled NHS genetic-testing clinical criteria. OC-risk stratification revealed 1/103 at ≥10% (high), 0/103 at ≥5%–<10% (intermediate), and 100/103 at <5% (low) lifetime OC risk. Decision aid satisfaction was 92.2%. The telephone helpline use rate was 13% and the questionnaire response rate at six months was 75%. The high-risk woman underwent surgical prevention. Contrast tests indicated that overall depression (p=0.30), anxiety (p=0.10), quality-of-life (p=0.99), and distress (p=0.25) levels did not jointly change, while OC worry (p=0.021) and general cancer risk perception (p=0.015) decreased over six months. In total, 85.5%–98.7% were satisfied with their decision.

Conclusion Findings suggest population-based personalised OC risk stratification is feasible and acceptable, has high satisfaction, reduces cancer worry/risk perception, and does not negatively impact psychological health or quality-of-life. Larger implementation studies evaluating long-term impact and cost-effectiveness of this strategy are needed.

Disclosures RM- funding from CRUK & Eve Appeal for this work. Funding from Barts Charity, Rosetrees trust outside this work. Honorarium from Astrazeneca & MSD.

IJ, UM- Financial interest in Abcodia, company for development of biomarkers for early detection of cancer. Other authors- No disclosures.