

**S3 Table. Inclusion and exclusion criteria for routine genetic testing integration intervention studies in oncology**

Selection criteria	Inclusion criteria	Exclusion criteria
<b>Study type</b>	Interventions	
<b>Study design</b>	<p>Randomised control trials (RCTs) – including step wedge and cluster RCT</p> <p>Non-randomised quasi-experimental design</p> <ul style="list-style-type: none"> <li>-Cohort study</li> <li>-Before and after study (including interrupted time series and multiple baseline design)</li> </ul> <p>Observational studies</p> <ul style="list-style-type: none"> <li>-cohort studies</li> <li>-Case series for intervention outcomes only</li> </ul> <p>Qualitative-</p> <p>Qualitative studies that report on implementation outcomes</p>	<p>Case reports, case series, case-control, cross-sectional, designed with no comparator</p> <p>Cross-sectional: Single point in time knowledge study no before or after (no comparison)</p> <p>Case series (no comparator) except if report on an intervention outcome</p> <p>Qualitative studies if they do not report on implementation or intervention outcomes</p>
<b>Population</b>	<p>Health providers of genetic testing and/or counselling for HBOC/LS including (but not limited to);</p> <ul style="list-style-type: none"> <li>- genetic counsellors,</li> <li>- clinical geneticists,</li> <li>- oncologists</li> </ul> <p>FOR</p> <p>Adult patients (&gt;18 years old) diagnosed with the following cancers;</p> <ul style="list-style-type: none"> <li>- ovarian</li> <li>- breast</li> <li>- colorectal</li> <li>- endometrial</li> </ul>	<p>Health providers with no involvement in mainstreaming genetic testing</p> <p>Patients with other cancers not related to hereditary cancer syndromes HBOC and hereditary colorectal cancer LS</p> <p>No specific data for the subgroup of interest</p> <p>Paediatric cancer patients &lt;18 years</p> <p>Asymptomatic individuals at high risk of HBOC and LS</p> <p>Asymptomatic relatives of HBOC and LS identified families</p>

	Minimum of 80% of population has to have the above cancers	
<b><u>Intervention</u></b>	<p>Interventions aiming to implement pre-test genetic counselling and genetic or genomic testing through mainstreaming* for breast and ovarian cancer</p> <p><u>OR</u></p> <p>Interventions to increase pre-test genetic counselling and genetic testing completion rates after universal tumour screening (UTS) for colorectal and endometrial cancer.</p> <p><u>For example, through increasing;</u></p> <ul style="list-style-type: none"> <li>- the knowledge/awareness of health providers re HBOC or LS</li> <li>- patient access to genetic testing</li> <li>- identification of hereditary cancer such as HBOC and LS</li> <li>- follow up of HBOC/LS patients getting through the health system</li> </ul> <p><u>OR</u></p> <p>Multicomponent interventions that target the health provider and patient to achieve the above</p>	<p>Interventions not used to increase identification of HBOC or LS</p> <p>Research genetic or genomic testing</p> <p>Laboratory methods of genetic testing</p> <p>Data on likelihood of HBOC/LS mutation detection, mutation incidence or phenotype without any information on mainstreaming of genetic testing for the patient or health provider</p> <p>Childhood-onset hereditary cancer</p> <p>Multi component interventions aimed solely at the patient except if the patient intervention is targeted to influence the health system</p> <p>Studies with UTS steps not involved in mainstreaming</p> <p>Physician discretionary referral to genetic counselling</p>
<b>Comparator</b>	<p>Standard care/no intervention</p> <p>Another Intervention</p>	
<b>Outcomes</b>	<p><u>Implementation Outcomes–</u></p> <ul style="list-style-type: none"> <li>-Acceptability</li> <li>-Adoption</li> <li>-Appropriateness</li> <li>-Feasibility</li> <li>-Cost</li> <li>-Fidelity</li> <li>-Penetration</li> <li>-Sustainability</li> </ul>	<p>Outcomes not linked to mainstreaming of genetic or genomic testing or enhancing the uptake of universal tumour screening to improve identification of HBOC and LS</p>

	<p><u>Service Outcomes</u></p> <ul style="list-style-type: none"> <li>-Efficiency</li> <li>-Safety</li> <li>-Effectiveness</li> <li>-Equity</li> <li>-Patient centeredness</li> <li>-Timeliness</li> </ul> <p><u>Client outcomes</u></p> <ul style="list-style-type: none"> <li>-Satisfaction</li> <li>-Function</li> <li>-Symptomatology</li> </ul> <p><b><u>CFIR</u></b></p> <ul style="list-style-type: none"> <li>-Intervention Characteristics</li> <li>-Inner Setting</li> <li>-Outer Setting</li> <li>-Characteristics of Individuals</li> <li>-Process</li> </ul>	
<b>Language</b>	English	Not in English
<b>Publication period</b>	From January 1 <sup>st</sup> 1980 - present	Before 1980
<b>Publication type</b>	Journal article	Conference proceedings, posters, comments or editorials, letters, news, editorials, narrative reviews, theses, review

- For the purposes of this systematic review mainstreaming is the process where all patients with a particular cancer are offered direct access to genetic testing in oncology care through pre-test genetic counselling regardless of who does the genetic counselling (eg. could be specialist or genetic counsellor).

