

Changes in health behaviours following a positive MCED screening result in the NHS-Galleri Trial

Laura Marlow, Ninian Schmeising-Barnes and Jo Waller

Centre for Cancer Screening, Prevention and Early Diagnosis, Wolfson Institute of Population Health, Queen Mary University of London

Background

- With rapid innovation in the development of multi-cancer early detection (MCED) tests, there is a need to understand psychological and behavioural aspects of MCED screening [1].
- The NHS-Galleri trial (NCT05611632) provided an opportunity to explore changes in behaviour following a 'cancer signal detected' (positive) result from a Galleri® blood test [2].
- We assessed self-reported changes in behaviour over 12 months following the test result, among those who did *not* have cancer diagnosed in that time ('false positive' results).
- Behaviours included:
 - Participation in single-site cancer screening among those invited
 - Help-seeking for possible cancer symptoms for those who had them
 - Health-related behaviours including smoking, alcohol intake, physical activity, fruit and vegetable consumption, healthy eating
- We also examined cancer risk perceptions, and future intentions to change behaviour

Methods

- Participants in the NHS-Galleri trial were adults in England, aged 50-77 years with no cancer diagnosis in the last 3 years [3].
- All trial participants receiving a positive result from their first MCED test within the trial were sent surveys at three timepoints:
 - T1 – at the time of receiving their results
 - T2 – 6 months later, once diagnostic work-up was complete
 - T3 – 14-16 months after the result
- We assessed self-reported screening attendance, help-seeking for symptoms and health-related behaviours. Cognitive and emotional aspects of perceived risk of cancer were assessed with single items from the TRIRISK model [3].
- Here, we report findings among participants who did not have a cancer diagnosed in the 12 months following their positive MCED result.

Results

Participants

- Among all trial participants receiving a positive result but with no cancer found at 12 months, the response rates to the surveys were 75.6% (T1), 73.4% (T2) and 68.0% (T3). We had an analysable sample of n=202.
- 62% were male and 36% were female.
- Participants were evenly distributed across quintiles of deprivation.
- 92% were from White British backgrounds.

Table 1: Help-seeking behaviour and intention

	n	% [95% CI]
Behaviour over previous 12-months		
Contacted the GP with a new symptom		
Yes	19	9.6 (6.2-14.6)
No	21	10.6 (7.0-15.7)
I had no new symptoms	158	79.8 (73.6-84.8)
Future intentions for the next 12 months		
Influence of result on help-seeking		
More likely to contact a GP about symptoms	114	58.2 (51.2-64.8)
Less likely to contact a GP about symptoms	2	1.0 (0.0-3.9)
No difference	67	34.2 (27.9-41.1)
Don't know	13	6.6 (3.8-11.1)

Figure 1: Self-reported screening participation in those invited in the previous 12 months with 95% Confidence Intervals

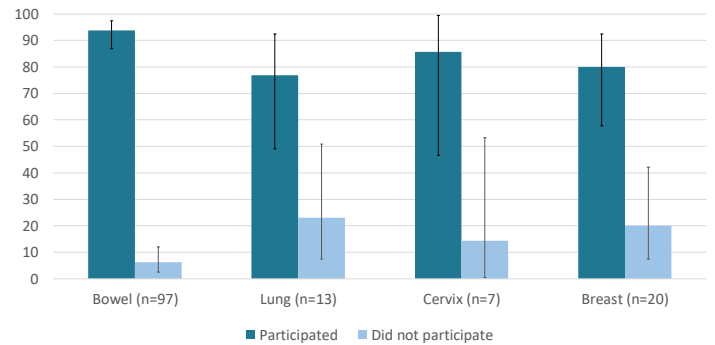
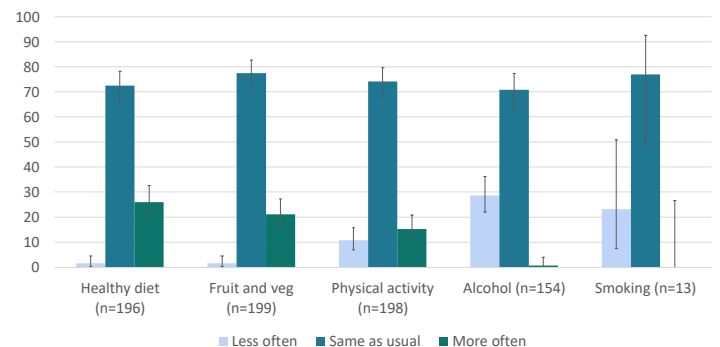


Figure 2: Self-reported changes to health-related behaviours in the previous 12 months with 95% Confidence Intervals (excluding those who said 'not applicable')



Future intentions:

Overall, 45-62% of participants intended to make at least one positive change to their health-related behaviours in the coming year.

Risk perceptions:

Those reporting higher affective risk (feeling somewhat/moderately/very worried about cancer) were more likely to intend to change at least one behaviour in the next 12 months ($\chi^2(1)=4.09$; $p=.043$). Other associations between perceived risk and behaviour/intention did not reach statistical significance.

Conclusions

- Our findings provide some reassurance that false positive MCED results do not deter most people from taking part in single-site screening or seeking help for symptoms.
- Almost no one reported being less likely to attend their GP if they had new symptoms in the coming 12 months, and intentions to change health-related behaviours were generally in a positive direction.
- Conclusions must be treated with extreme caution given the self-selected nature of the trial participant population and the very small sample sizes for some behaviours.
- As MCEDs are evaluated further, monitoring other behaviours related to cancer risk will be essential to fully understand the impact of MCED testing.

References

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