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Cancer Research UK response to the UK National Screening Committee consultation: Optimising Bowel Cancer Screening.

Cancer Research UK welcomes the opportunity to respond to this consultation. Bowel cancer is the fourth most common cancer in the UK and around 16,000 people die every year from bowel cancer. Diagnosing bowel cancer at stage I means more than 9 in 10 people survive their bowel cancer for five or more years. But diagnosed at stage IV, fewer than 1 in 10 people survive their bowel cancer for five or more years. The NHS Bowel Cancer Screening Programme is one of the best ways to detect bowel cancer early, when it is easier to treat successfully. Yet, currently around 1 in 10 bowel cancers are detected via this route. We want to see this increase so that fewer people die from bowel cancer.

With the introduction of the Faecal Immunochemical Test (FIT) there is significant potential for the Bowel Cancer Screening Programme to be more effective at diagnosing more cancers earlier and detecting pre-cancerous adenomas. The potential of the screening programme to detect more cancers at an early stage can be improved by lowering the threshold of FIT and/or expanding the age range. We are pleased that the UK National Screening Committee (NSC) is considering ways to optimise the bowel screening programme and reduce the burden of bowel cancer. It is vital, however, that proposed changes are based on the most appropriate and sufficiently robust evidence.

Summary

We do not support either of the policy recommendations in this consultation based on the phase 1 modelling – neither option is acceptable based on the available evidence.

As the authors of the report themselves acknowledge, there are limitations with the model, which overall produces uncertainty in the conclusions. It is entirely possible that the more sophisticated planned phase 2 ScHARR model, with the inclusion of more up to date data, would produce different conclusions and policy recommendations. It is therefore premature to make significant changes to the programme based on the current evidence.

Current capacity constraints should not prevent the NSC from making the best recommendation based on clinical benefit and cost effectiveness. The NSC's role is to advise Government and the NHS on all aspects of screening. It therefore felt inappropriate that capacity constraints featured so strongly in the modelling then used to inform policy options. We appreciate that the NSC is making policy recommendations, which do need to be pragmatic and deliverable. But it is disappointing that the policy recommendations for the most optimal screening programme are being stymied by current endoscopy capacity. We would prefer the NSC acknowledged resource limitations but provide an ambition based on public health benefit for the NHS to deliver. Any shortfalls undermining the optimisation of bowel screening should be considered and addressed by the government and NHS when deciding whether to adopt and implement NSC recommendations. Health Education England has introduced a 'workforce impact assessment' in their draft workforce strategy – workforce implications of FIT screening should be encompassed within that, rather than limiting the options considered by the NSC.

We would ultimately like to see the NSC recommend the optimal screening programme for public health benefit, and if necessary, outlining recommendations for more gradual implementation in line with current and projected workforce capacity constraints.

With respect to developing a more robust evidence base on which to make significant policy recommendations we would like to see the timelines and parameters of the phase 2 modelling published as soon as possible. Phase 2 modelling should use the most up to date data available and should offer policy options that are not solely informed by cost-effectiveness.

Is the ScHARR model sufficiently robust to support UK policy?

We do not think it is appropriate to make policy recommendations based on the phase 1 ScHARR modelling because there appear to be several unacceptable limitations with the model, and therefore uncertainties in its predictions. For example, the authors admit there is particular uncertainty around the predictions for surveillance due to the uncertainty around parameters used in the model. Also, the model makes assumptions such as uptake and sensitivity not changing with age, while we know there is evidence that they do. We are therefore unsure whether the model overestimates the benefit in younger ages as a result. Such limitations are stated as being addressed with phase 2 and we would recommend that the ScHARR team consult with those reviewing the surveillance guidance before conducting phase 2 modelling.

In addition, there are limitations with some of the cost estimates data used, particularly on treatment costs. The studies used as a source of treatment costs all have significant limitations. We would not, for example, advise the use of figures from the Incisive Health report, *Saving Lives, Averting Costs* for this type of work. This is critical because the sensitivity analysis itself demonstrates the impact of the uncertainty in costs; showing some scenarios as being cost-saving when using one version of costs, but not when using other versions.

The modelling for whether it is cost-effective to include bowel scope within the programme seems particularly uncertain: “Screening strategies combining bowel scope and FIT were considered. For a repeated FIT screening strategy, whether it is cost effective to replace one FIT screen with one-off bowel scope at age 58 is very uncertain. It depends on the level of screening referral colonoscopies and varies in sensitivity analyses.” The selection of a threshold of “below 93 µg/g” for option B assumes that “10 bowel scopes and 4 screening referral colonoscopies are equivalent (based on procedure time)". We would advise further collaboration with colleagues from Health Education England (HEE) and the British Society of Gastroenterologists to validate such assumptions.

Overall, we are not confident that if the phase 1 model were re-calibrated with more recent data, and with less uncertainty in some model values such as costs, that the outcomes and policy recommendations would not be different. Furthermore, the approach for the phase 2 model would seem to be, based on information available to date, significantly more robust and could further change conclusions and recommendations.

We would like to see the phase 2 modelling carried out and published as soon as possible, using the most up to date data available and with re-consideration of estimates for key data such as costs. We understand the screening surveillance guidance is currently being reviewed, so we would recommend that the ScHARR consult with those reviewing the guidance before conducting phase 2 modelling. To help inform policy decisions on how to roll out an optimised bowel screening programme, it would be useful for the modelling to predict results for interim steps for roll out such as, if screening 50-74s is the optimal age range for FIT, is screening 50-74-year olds at a high

threshold more or less effective than screening 60-74-year olds at a low threshold, using both cost-effectiveness and clinical benefit as a measure.

We would be keen to encourage transparency with the modelling, and the opportunity for other appropriate teams or experts to have access to the model so that it can be tested under different conditions, or when using alternative perspectives (i.e. mortality benefit).

Do the policy recommendations follow from the ScHARR work?

The policy recommendations proposed would seem to follow from the modelling if the conclusions are based on cost-effectiveness alone. However, as discussed above, we feel that the recommendations are premature and that if the current model was further updated, or phase 2 modelling completed, the outcomes and policy recommendations may be difference. We therefore cannot confidently support either of these recommendations.

Are the policy options feasible? If so how can efforts to deliver either be evidenced?

The policy options suggested are currently not feasible due to endoscopy capacity in the NHS. Cancer Research UK has been campaigning to increase the diagnostic workforce in the NHS. HEE has made some steps to increase capacity but this will take some time to come to fruition. We understand that the current constraints are delaying the introduction of FIT into the bowel screening programme and preventing the test being brought in at an optimal sensitivity level.

Workforce capacity to conduct follow up colonoscopies and pathology should be a key factor for government and the health service when deciding how to implement the optimal programme as recommended by the NSC. But limited capacity should not detract from an ambition to optimise the delivery of the bowel screening programme for clinical gain.

Although HEE is coordinating an accelerated training programme to boost clinical endoscopist numbers, these clinical endoscopists are being trained to deliver gastroscopy and flexible sigmoidoscopy, not the colonoscopies required for bowel screening follow up. We need clarity on whether the model considered the cost and staff time of additional training that would allow endoscopists currently trained to conduct flexible sigmoidoscopies to carry out colonoscopies. This additional training is currently completed through in-house training but Public Health England is investigating creating a transition course for those trained in flexible sigmoidoscopy to deliver colonoscopies. We would recommend having conversations with HEE and British Society of Gastroenterologists on workforce modelling if, as we recommend, capacity is to be considered before conducting phase 2 modelling. If the modelling considers demand and capacity in colonoscopy, this should also be done for the pathology workforce.

About us

Cancer Research UK is the world's largest independent cancer charity dedicated to saving lives through research. It supports research into all aspects of cancer and this is achieved through the work of over 4,000 scientists, doctors and nurses. In 2016/17, we spent £432 million on research in institutes, hospitals and universities across the UK. We receive no funding from the Government for our research and are dependent on fundraising with the public. Cancer Research UK wants to accelerate progress so that three in four people survive their cancer for 10 years or more by 2034.

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