

IQWiG Reports - Commission No. S17-01

Colorectal cancer screening in under 55-year-olds with a family history – update<sup>1</sup>

**Extract** 

<sup>&</sup>lt;sup>1</sup> Translation of the key statement of the rapid report S17-01 *Darmkrebsfrüherkennung bei Personen unter* 55 *Jahren mit familiärem Risiko – Aktualisierung* (Version 1.0; Status: 24 April 2018). Please note: This document was translated by an external translator and is provided as a service by IQWiG to English-language readers. However, solely the German original text is absolutely authoritative and legally binding.

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#### **Key statement**

#### Research question

This report aims to examine whether there are any changes with respect to the conclusion of final report S11-01 (see below) as regards sub-goals B, C and D. All three sub-goals serve to assess the patient-relevant benefit of screening for colorectal cancer in people under 55 years of age with a family history of colorectal cancer. The assessment will be updated on the basis of literature to be identified as part of the update search.

### Sub-goal B: Assessment of the diagnostic accuracy of family history tools

Sub-goal B seeks to examine how reliably (i.e., with what diagnostic accuracy) family history tools which could be used during screening can identify people at higher risk due to a positive family history within the normal population.

# Sub-goal C: Comparative benefit assessment of comprehensive screening strategies using family history tools

Sub-goal C seeks to answer the question as to what benefit is offered by a screening strategy in which a family history tool is initially applied to the normal population under 55 years of age to identify patients at higher risk due to a positive family history. People with a positive test result are subsequently offered participation in a screening procedure. In this context, it is also of interest whether different screening strategies (e.g., use of different family history instruments) differ in their benefits.

## Sub-goal D: Comparative benefit assessment of different screening procedures within a screening strategy in persons with an increased risk due to a positive family history

If no studies are found for sub-goal C, the benefit of different measures taken as part of modified screening is to be evaluated for people who have already been found to be at increased risk due to a positive family history. This relates to different screening procedures (especially colonoscopy and faecal occult-blood testing, FOBT), but also to other potential differences in the screening strategies (e.g., different time intervals between the tests).

#### **Conclusion**

No new studies were available on the assessment of the diagnostic accuracy of family history tools. Like in final report S11-01, no studies were suitable to be included for the age group of interest for the report, i.e. persons under 55 years of age, for paper-based questionnaires or for German-language tools. According to the studies included in report S11-01, interviews for recording the family history of colorectal cancer have a specificity of 94% and 99%, respectively, and a sensitivity of 81% and 53%, respectively, in age groups not restricted to under-55-year-olds.

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No RCTs or prospective comparative interventional studies were found on the comparison of screening strategies in which a family history tool is used on the normal population to identify persons under 55 years of age at increased risk of colorectal cancer. Due to a lack of suitable studies, the benefit or harm of screening strategies using family history tools remains unclear, as in final report S11-01.

For the comparison of different screening measures in persons at increased risk of colorectal cancer due to a positive family history, 2 studies with a high risk of bias were included. The results on the comparison of colonoscopy with an immunological faecal occult-blood test were not usable. For the comparison of a surveillance colonoscopy after 6 years versus surveillance colonoscopies after 3 and 6 years, results were reported on the outcomes regarding detection of advanced adenomas and detection of colorectal cancer. Age-stratified results for persons under age 55 years were not available. There was no hint of benefit or harm. As in final report S11-01, the benefit or harm of different screening procedures for persons with a positive family history therefore remains unclear, both for persons under 55 years of age and for other age groups.

The full report (German version) is published under <a href="https://www.iqwig.de/de/projekte-ergebnisse/projekte-301/nichtmedikamentoese-verfahren/s-projekte/s17-01-darmkrebsfrueherkennung-bei-personen-mit-familiaerem-risiko-aktualisierung-zum-auftrag-s11-01.8014.html">https://www.iqwig.de/de/projekte-ergebnisse/projekte-301/nichtmedikamentoese-verfahren/s-projekte/s17-01-darmkrebsfrueherkennung-bei-personen-mit-familiaerem-risiko-aktualisierung-zum-auftrag-s11-01.8014.html</a>

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An English summary of the original report is published under <a href="https://www.iqwig.de/en/projects-results/projects/non-drug-interventions/s-projekte/s11-01-assessment-of-the-benefit-of-screening-in-persons-under-55-years-of-age-with-a-family-history-of-colorectal-cancer.1359.html">https://www.iqwig.de/en/projects/projects/non-drug-interventions/s-projekte/s11-01-assessment-of-the-benefit-of-screening-in-persons-under-55-years-of-age-with-a-family-history-of-colorectal-cancer.1359.html</a>