



Samenvatting van het proefschrift

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"Colorectal cancer screening: from test performance to participant experience"

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In the Netherlands, population screening for colorectal cancer will be introduced. Worldwide, screening for colorectal cancer has a long history. By contrast with most other types of cancer screening, there are several screening methods available for colorectal cancer; faecal occult blood test (FOBT), sigmoidoscopy, colonoscopy and CT-colonography (CTC). Worldwide, there is much variation in the used screening method, and each screening method has different advantages and disadvantages. This thesis addressed different aspects of the screening methods. In the Netherlands, a population screening program using the FIT will be introduced soon. As there are few studies available investigating the sensitivity and specificity of the different FITs, a systematic review was performed analyzing differences in positivity rate, detection rate, and positive predictive value between the different FITs; as alternative outcome parameters that are relevant for clinical practice. We found no significant differences between the FITs, which may be attributed to the small number of studies available. Within this thesis, a discrete choice experiment (a research method based on market research) was carried out to investigate which qualities of colorectal cancer screening tests determine population preferences for colorectal cancer screening tests. We found that mainly the required bowel preparation, risk reduction of colorectal cancer-related death, and the required frequency of screening (shorter screening intervals were preferred) determine those preferences. Another study investigated reasons for participation and non-participation in colorectal cancer screening with the FOBT and sigmoidoscopy. Non-participation was mainly influenced by absence of bowel complaints, and worries about the burden of a test. Only 12 percent of participants made an informed choice (sufficient knowledge and action on consistent with screen-intention) about participation. Based on these data, there should be given priority to increasing knowledge within the Dutch population about colorectal cancer

and the effects of population screening. Among participants of colorectal cancer screening with colonoscopy or CTC, the time required for and health effects of participation were investigated. CTC screening participants returned to their daily activities more quickly (colonoscopy 3:54 hours, interquartile range (IQR) 1:48–15:00; CTC 1:36 hours, IQR 0:54–4:42), but colonoscopy screening participants had a shorter duration of screening-related symptoms (colonoscopy 11 hours, IKA 2:54–20; CTC 22 hours; IKA 5:30–47). The quicker full recovery after colonoscopy seemed mainly attributable to the shorter duration of diarrhea after bowel preparation (Cleanprep for colonoscopy; Telebrix for CTC). The final article of this thesis was an ethical exploration whether to offer individuals a choice between colorectal cancer screening strategies. So far, none of the CRC screening methods has been shown to be superior to others, taking all aspects into account. Therefore, it can be argued that individuals should be allowed to choose between screening methods. Although this is more common in the USA, in Europe usually a single screening test is offered to the target population. Autonomy and informed choice are important arguments in favour of a choice of colorectal cancer screening strategies. An important argument against a choice of screening strategies is that choice may lower screening participation as it may cause confusion and therefore result in doing nothing (the studies that are available demonstrate that a choice of screening strategies does not increase, and sometimes even lowers screening participation compared to individuals offered a single screening method). ◀