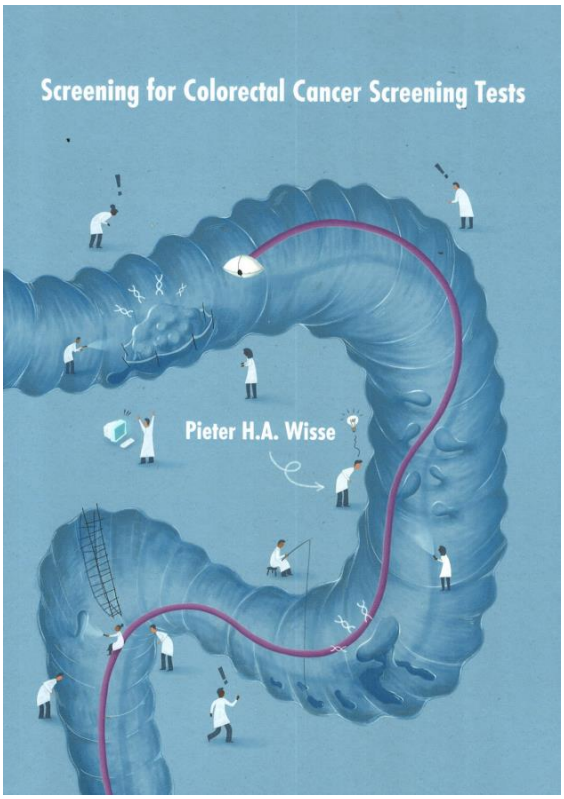

Samenvatting van het proefschrift

P.H.A. Wisse
"Screening for Colorectal Cancer Screening Tests"

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In this thesis we aimed to evaluate the performance of fecal immunochemical test (FIT) in comparison with already established colorectal cancer (CRC) screening tests and potential new screening tests to improve CRC screening (part II). In addition, we aimed to provide insights on how to reduce PCCRC risk and therefore improve colonoscopy quality within the screening program (part III).

Part II of this thesis results in three main conclusions. The first conclusion (**Chapter 2**) is that FIT outperforms guaiac-based fecal occult blood tests (g-FOBTs). The second conclusion (**Chapter 3, 4 and 5**) is that the multitarget FIT (mtFIT) outperforms FIT in the detection of advanced neoplasia by increased detection of advanced adenomas. The third conclusion (**Chapter 6)** is that tests that measure circulation tumor DNA (ctDNA) could potentially be used for CRC screening and have complementary value to FIT.

Part III of this thesis results in four additional main conclusions. The fourth conclusion (**Chapter 7**) is that the number of post colonoscopy colorectal cancers (PCCRCs) in the Dutch CRC screening program is low, which

reflects high quality colonoscopy by accredited and audited endoscopists. The fifth conclusion (**Chapter 8**) is that adenoma detection rates (ADRs) are substantially higher for colonoscopies after positive FIT compared to colonoscopies performed for other indications. The sixth conclusion (**Chapter 8**) is that endoscopists their ADRs are inversely associated with the interval PCCRC risk of the screenees that undergo colonoscopy after positive FIT by these endoscopists. The seventh conclusion (**Chapter 9**) is that CRC risk, 2.5 years after a negative colonoscopy (after positive FIT), is equal to the CRC risk 2 years after a negative FIT.