



Nederlandse Vereniging voor Volksgezondheid  
van Waters  
Nederlandse Vereniging voor Volksgezondheid,  
Wetenschap en Sport

# Bevolkingsonderzoek darmkanker

**Short- and long-term oncological outcomes of screening-detected T1 colorectal cancer (CRC) in the Netherlands**

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**WEO CRC Screening Committee meeting – 7<sup>th</sup> of October 2022**

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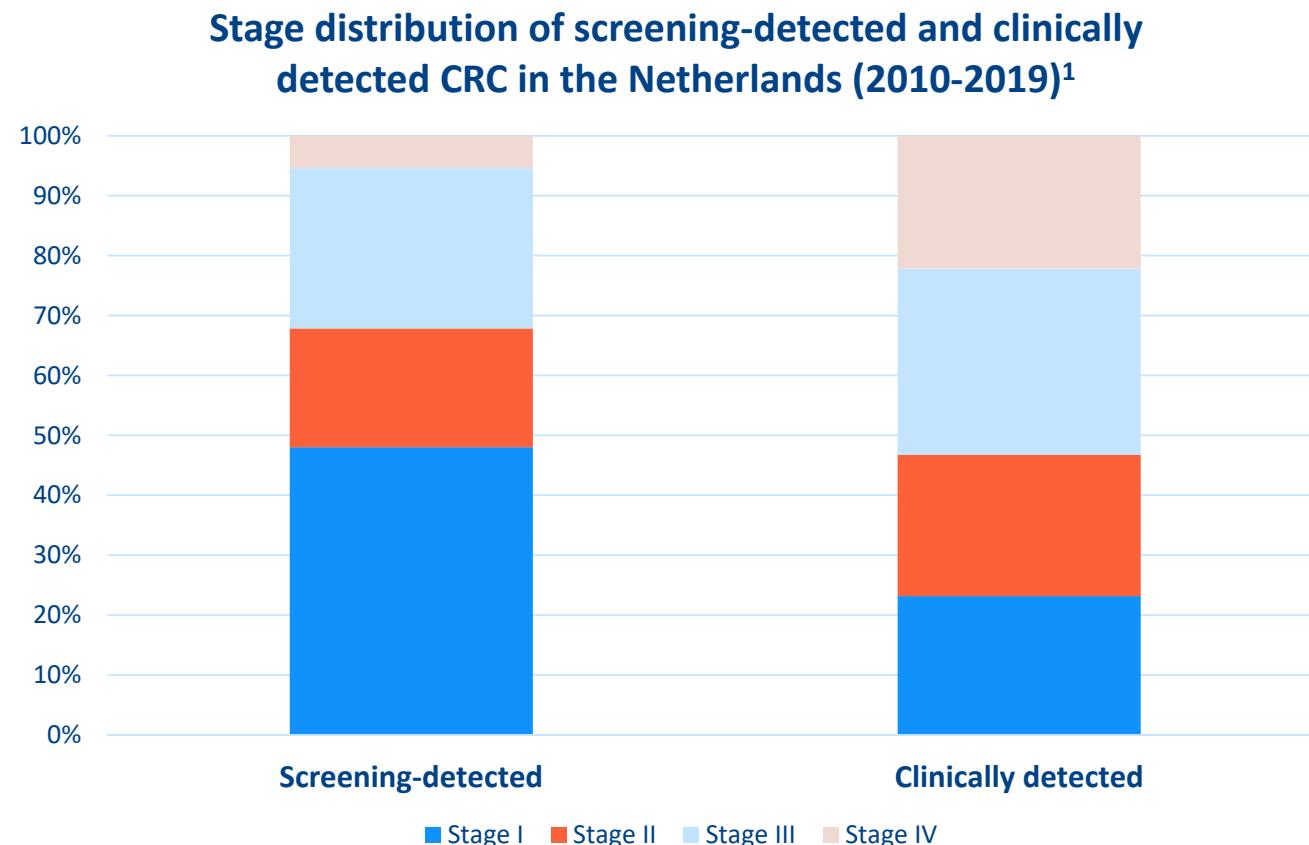
# Disclosures

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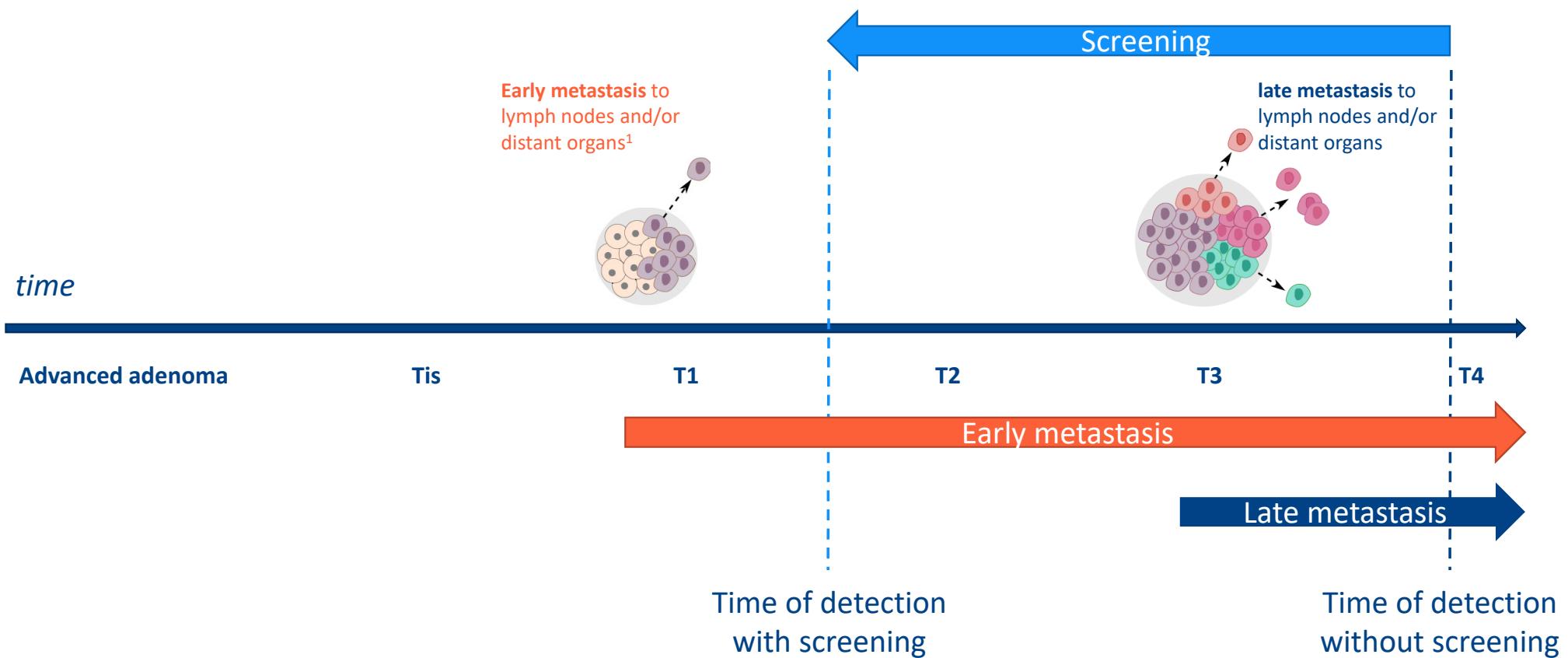
No disclosures

# Screening-detected CRCs have a more favourable stage distribution

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# Screening may influence time of detection



## Aim

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**Do screening-detected T1 CRCs have a different oncological risk profile compared to non-screening-detected T1 CRCs?**

# Study design, population and endpoints

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## *Design and population*



Retrospective cohort study in 12 Dutch hospitals



All consecutive T1 CRC patients diagnosed between 2014 - 2017

## *Endpoints*

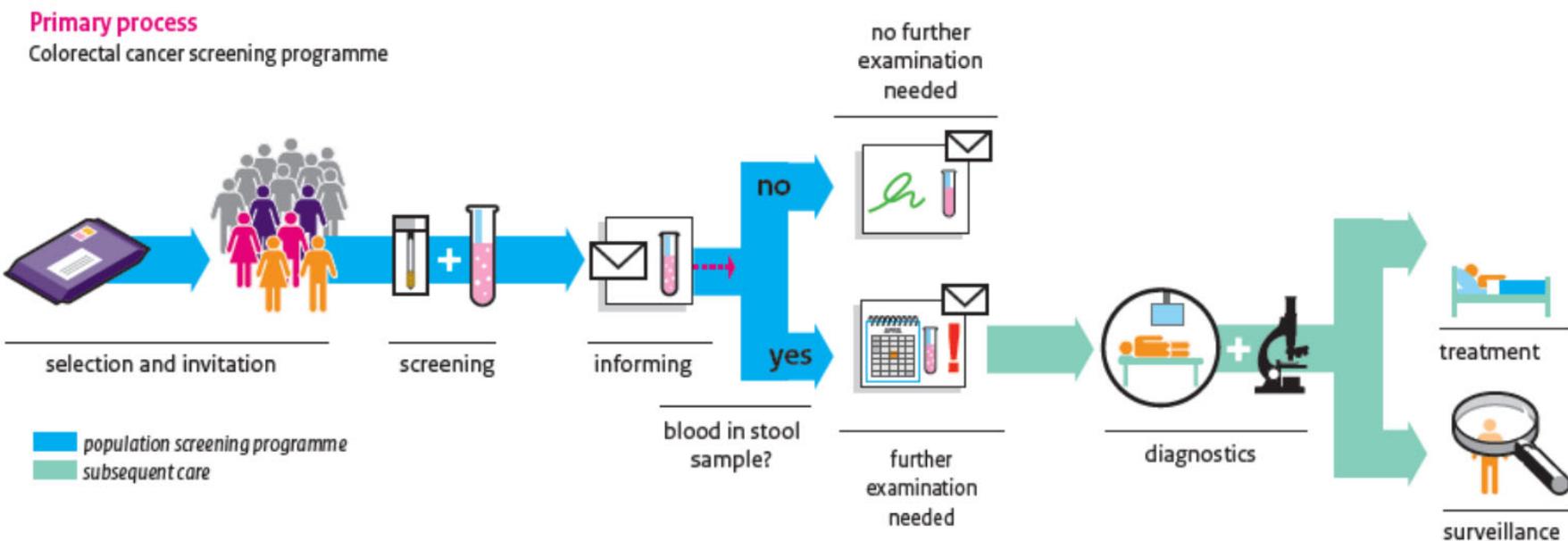


Synchronous lymph node metastasis (LNM) at diagnosis



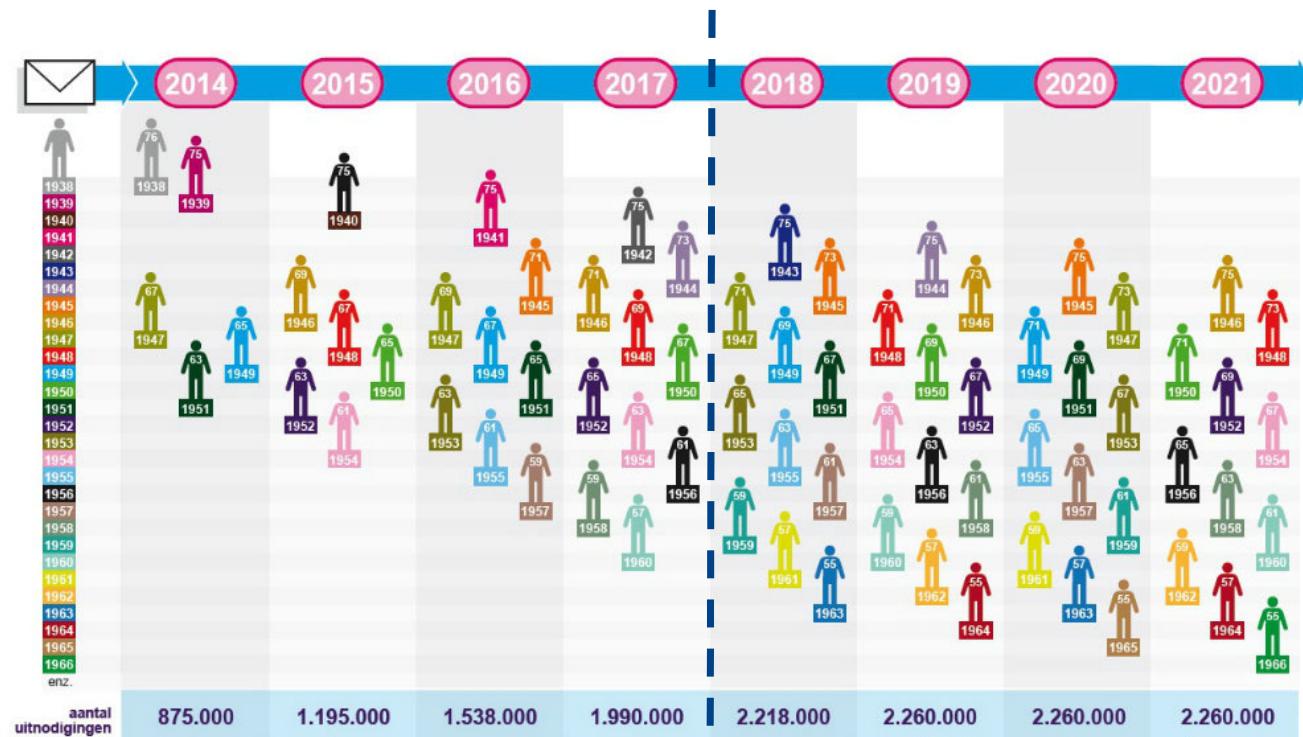
Overall survival (OS), Recurrence-free survival (RFS) & Metastasis-free survival (MFS)

# The Dutch CRC screening programme



Source: *The National Institute for Public Health and the Environment (RIVM), Framework for the execution of colorectal cancer screening 2021*

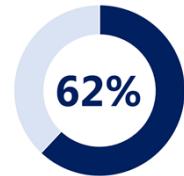
# Step-wise implementation by age cohorts from 2014-2019



> 80% of target population had received at least one invitation by the end of 2017

# Baseline characteristics

Screen-detected  
(sdT1CRC)



67 years



Non-screen-detected  
(non-sdT1CRC)

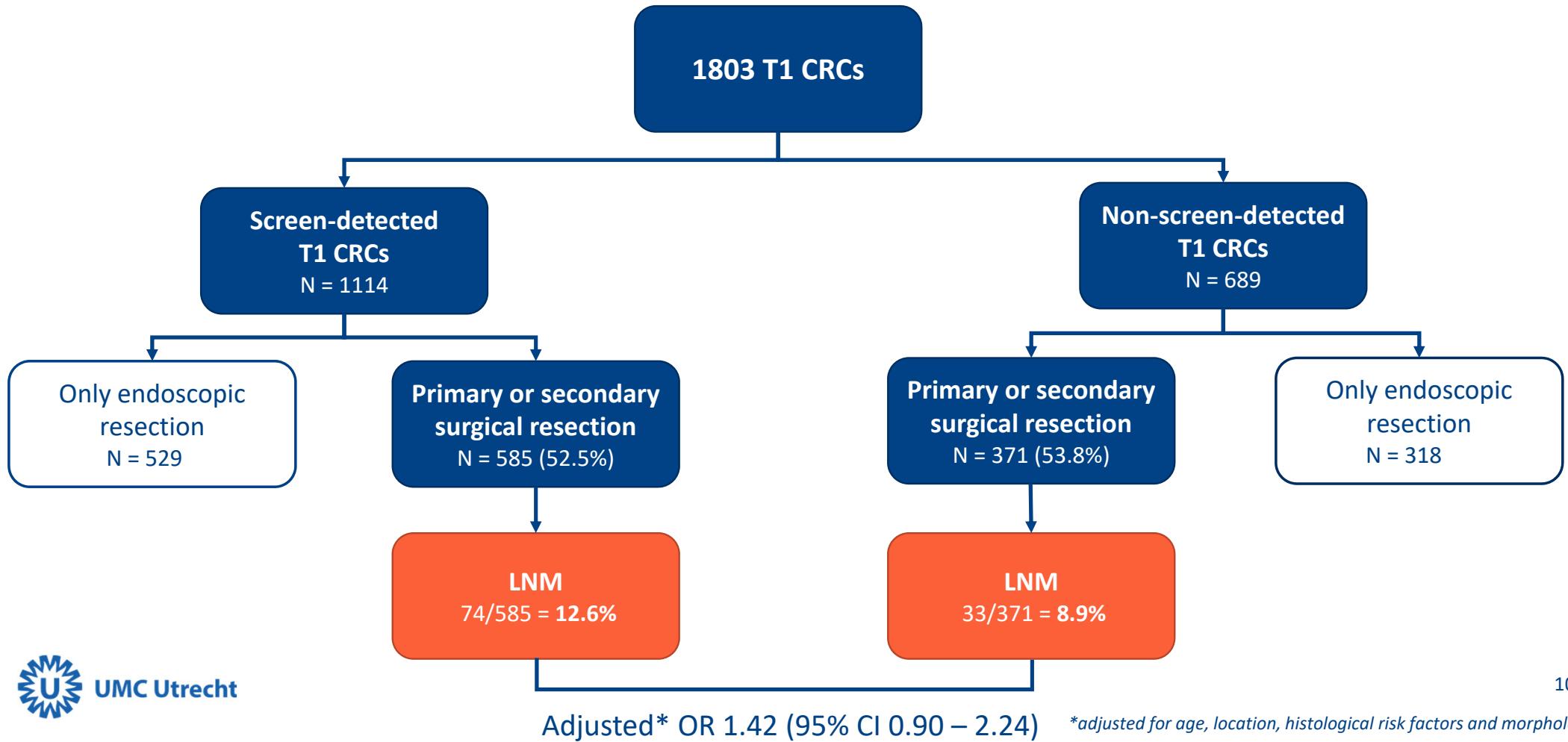


71 years



	Screen-detected T1 CRC N= 1114	Non-screen-detected T1 CRC N= 689	P value
Age, in years, median (IQR)	67 (10)	71 (15)	< 0.001
Male sex, n (%)	726 (65.2)	398 (57.7)	< 0.01
ASA, n (%)			< 0.001
I	277 (25.7)	147 (22.8)	
II	702 (65.1)	365 (56.6)	
III-IV	100 (9.3)	133 (20.6)	
missing	35	44	
Location, n (%)			< 0.001
Right-sided	181 (16.2)	140 (20.3)	
Left-sided	698 (62.7)	360 (52.3)	
Rectum	235 (21.1)	189 (27.4)	
Morphology, n (%)			0.95
Non-pedunculated	724 (65.9)	440 (65.7)	
Pedunculated	374 (34.1)	230 (34.3)	
missing	16	19	
Diameter of polyp, in mm, median (IQR)	20 (17)	20 (15)	< 0.001
missing	24	35	
Differentiation, n (%)			0.94
Well/moderate	1044 (94.8)	639 (95.0)	
Poor/signet ring cell	57 (5.2)	34 (5.0)	
missing	13	6	
Lymphovascular invasion, n (%)			0.47
Absent	905 (83.8)	565 (85.2)	
Present	175 (16.2)	98 (14.8)	
missing	34	26	
Resection margin, n (%) <sup>b</sup>			0.54
R0	497 (62.9)	290 (65.6)	
R1	126 (15.9)	61 (13.8)	
Rx	167 (21.1)	91 (20.6)	
missing	26	10	
Treatment, n (%)			< 0.001
Endoscopic only	529 (47.5)	318 (46.2)	
Primary surgery	298 (26.8)	237 (34.4)	
Secondary surgery	287 (25.7)	134 (19.4)	

# No statistically significant difference in LNM was found

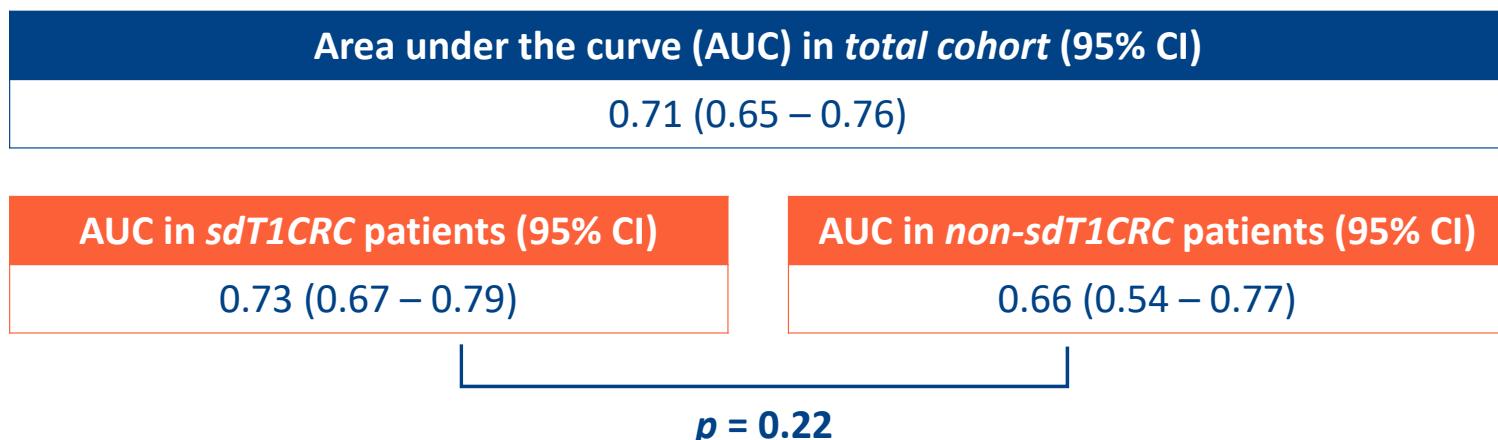


# Classic risk factors for LNM are of predictive value in sdT1CRCs as well

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## Risk factors included in multivariable logistic regression model:

- Age
- Location
- Lymphovascular invasion
- Grade of differentiation
- Morphology



# CRC recurrences are equally observed in sd and non-sd patients

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Recurrences – *local and distant*

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Screening-detected T1 CRC

3,4%

Non-screening-detected T1 CRC

3,5%

Recurrences – *distant*

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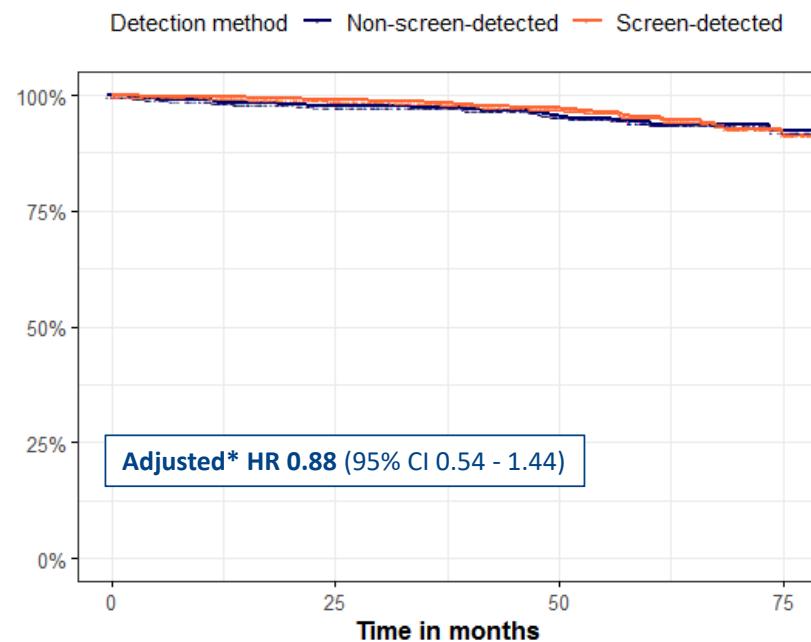
2,9%

2,2%

\**after a median follow-up of 51 months*

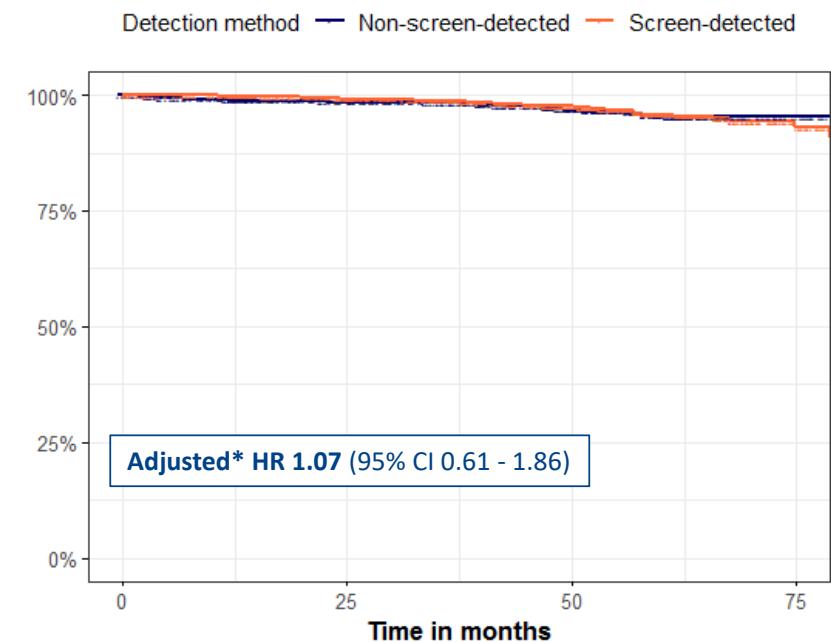
# Sd and non-sdT1CRC patients have similar RFS and MFS

Recurrence-free survival



\*adjusted for T1 CRC location + treatment strategy

Metastasis-free survival



\*adjusted for T1 CRC location + treatment strategy

# Overall survival is better in sdT1CRC patients

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\*adjusted for age at diagnosis + ASA score

## Conclusions

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- Screening-detected T1 CRC patients do not seem to have a different oncological risk profile compared to non-screen-detected T1 CRC patients
- Classic risk factors for LNM that guide clinical decision making, are equally predictive in the T1 CRC screening population
- Non-screen-detected patients have a significant higher risk of death due to non-CRC-related causes

## Acknowledgements:

