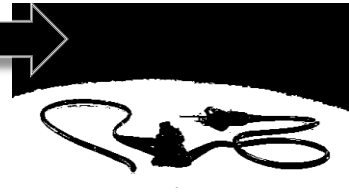
Vorsorge-Koloskopie: gibt es Qualitätstandards?

C. Gubler- Januar 2017
Koloproktologietagung Bern



Quality

hygiene
sensitivity **ADR – PDR**
resection completeness
morbidity & mortality
patient's perception
surveillance

Interval carcinoma

"colorectal cancer diagnosed after a colorectal screening examination or test in which no cancer is detected, and before the date of the next recommended exam"

3.4% CRC are interval cancers

Samadder Gastroenterology 2015

proximal > distal interval CRC risk x 2.4

Sanduleanu GUT 2015

Risk factors
- -technical factors
- -biology-related
- -hereditary cancer syndromes
- -sessile lesions

PCCRC: Post Colonoscopy Colorectal Cancer

Incidence PCCRC per endoscopist
= best quality parameter for colonoscopies

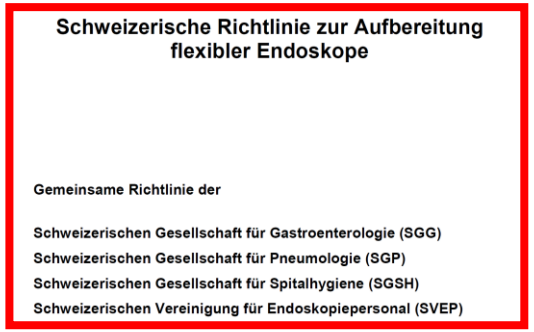
Surrogate marker: ADR

absolute risk 0.115% if ADR <20%
0.011% if ADR >20%

Kaminski N Eng J Med 2010
Corley N Eng J Med 2014

Circumstances to be fulfilled

hygiene = clean instruments


Schweizerische Richtlinie zur Aufbereitung flexibler Endoskope

Gemeinsame Richtlinie der

Schweizerischen Gesellschaft für Gastroenterologie (SGG)
Schweizerischen Gesellschaft für Pneumologie (SGP)
Schweizerischen Gesellschaft für Spitalhygiene (SGSH)
Schweizerischen Vereinigung für Endoskopiepersonal (SVEP)

http://www.sggssg.ch/richtlinien-empfehlungen/

morbidity & mortality = education and training/skills

http://www.fmh.ch/bildung-siwf/fachgebiete/facharzttitel-und schwerpunkte/gastroenterologie.html

400 colonoscopies incl 30 polypectomies, 500 NAAP's

surveillance = logistics & communication

patients perception = satisfaction

Agenda

parameter

2x individual
1x instrument

guidelines
SGGSSG
outline

patient

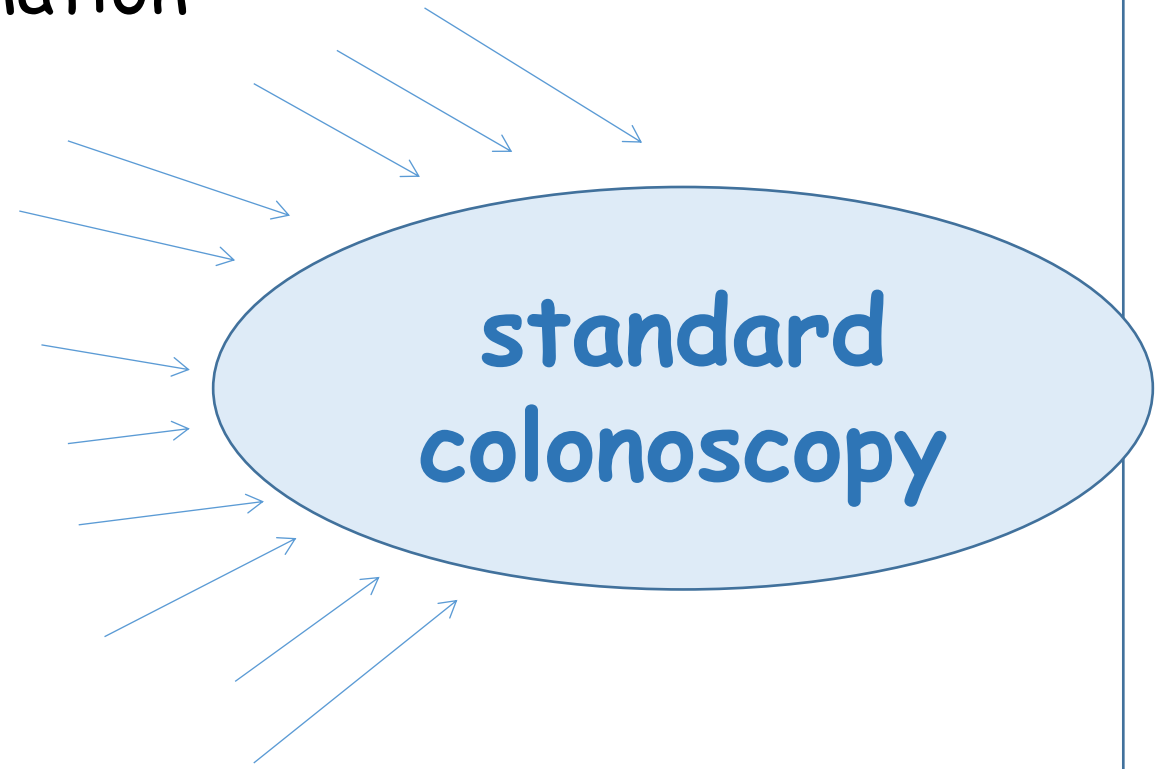
bowel preparation
bleeding diathesis
bedding during examination
sedation
spasmolytics

endoscopist

completeness
meticulous inspection
proper resection

tools

auxiliary devices
instruments up to date
monitors up to date



patient	bowel preparation
	bleeding diathesis
	bedding during examination
	sedation
	spasmolytics
endoscopist	completeness
	meticulous inspection
	proper resection
tools	auxiliary devices
	instruments up to date
	monitors up to date

Bowel preparation scales

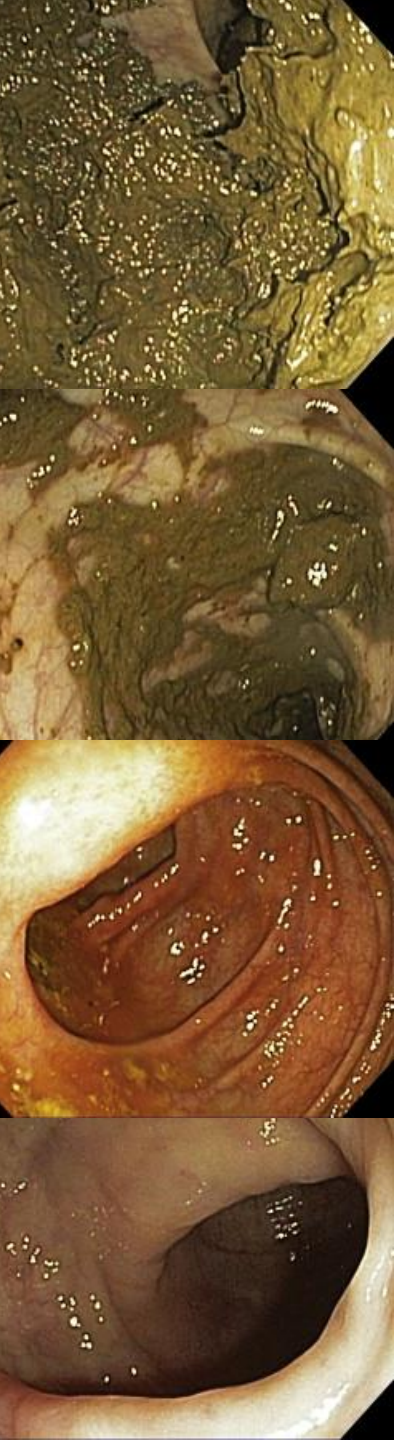
-Gerard	Chicago bowel preparation scale	Clin Transl Gastroenterol 2013
-Aronchick	Aronchick Scale	Gastrointest Endosc 2000
-Rostom	The Ottawa Scale	Gastrointest Endosc 2004
-Halphen	Harefield Cleansing Scale	Gastrointest Endosc 2013
-Lai	**The Boston Bowel Preparation Scale**	Gastrointest Endosc 2009

3 broad colon regions
- -cecum & ascendens
- -right to left flexure
- -descendens & rectosigmoid

+

4 subjective points
- 0 – unprepared, no mucosa seen
- 1 – some mucosa seen, major residual staining
- 2 – minor residual staining, mucosa well seen
- 3 – no residuals, mucosa well seen

3 x 0-3: min 0 – max 9



Polyp decetion rate BBPS >5 = 40%
BBPS <5 = 24%

Definition of adequate bowel preparation = BBPS ≥ 6

-lack of evidence of one superior bowel cleansing agent

Minimum goal 90% pt.
Target goal 95% pt.

Cohort Ontario residents 50-80y n = 110'402

-negative complete colonoscopy 1992-97
-follow up through end of 2006
-new CRC 14% during 15y follow up

Non-Gastroenterologist: risk factor in multivariate analysis

Rabeneck Clin Gastroenterol Hepatol 2010

Training
Education

Endoscopic characteristics	Study cohort (n = 533) (%)	AM group (n = 270) (%)	PM group (n = 263) (%)	p value
Adenoma detection	132 (25)	78 (29)	54 (21)	**0.03**
Bowel preparation				0.6
Acceptable	251 (47)	128 (47)	123 (47)	
Unacceptable	282 (53)	142 (53)	140 (53)	
Double procedure	100 (19)	48 (18)	52 (20)	0.6
Mean withdrawal time (min)	11	12	10	**0.002**
Mean procedure time (min)	25	26	23	**0.005**
Mean amount of midazolam (mg)	2.8	2.7	2.8	0.2

Teng Surg Endosc 2016

-Sanaka Am J Gastroenterol 2009
-Paek Hepatogastroenterol 2013
decrease after 4th hour of session

-Gurudu Am J Gastroenterol 2011
not different in half-day-blocks

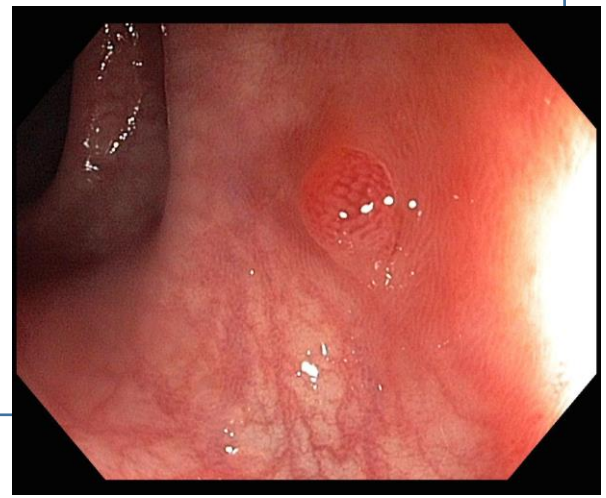
best choice = monday morning
lowest attendance = monday morning or december

Nayor Prev Med 2016

clean colon + proper endoscopic skills
= complete and safe colonoscopy

upstream — cecal or ileal intubation rate
less complications

downstream — withdrawal time
correlated with ADR



min **90%**
Goal **95%**

cecal or ileal intubation rate

PDR higher Thoufeeq Gastrointest Open Int 2015

min **6min**
Goal **>10min**

withdrawal time

ADR higher Gromski Surg Endoscopy 2012

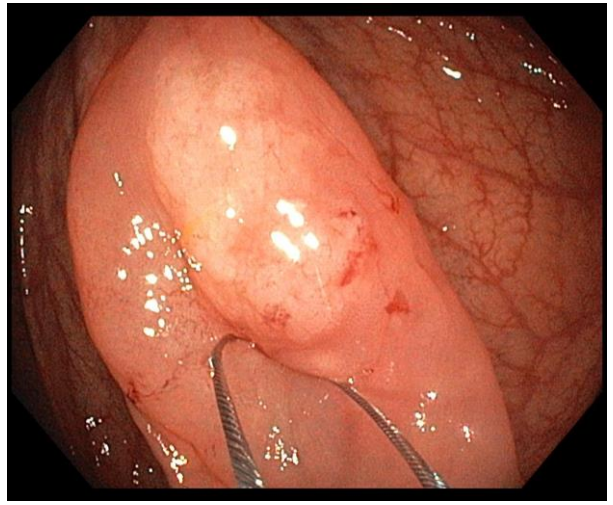
Polyp Detection Rate PDR

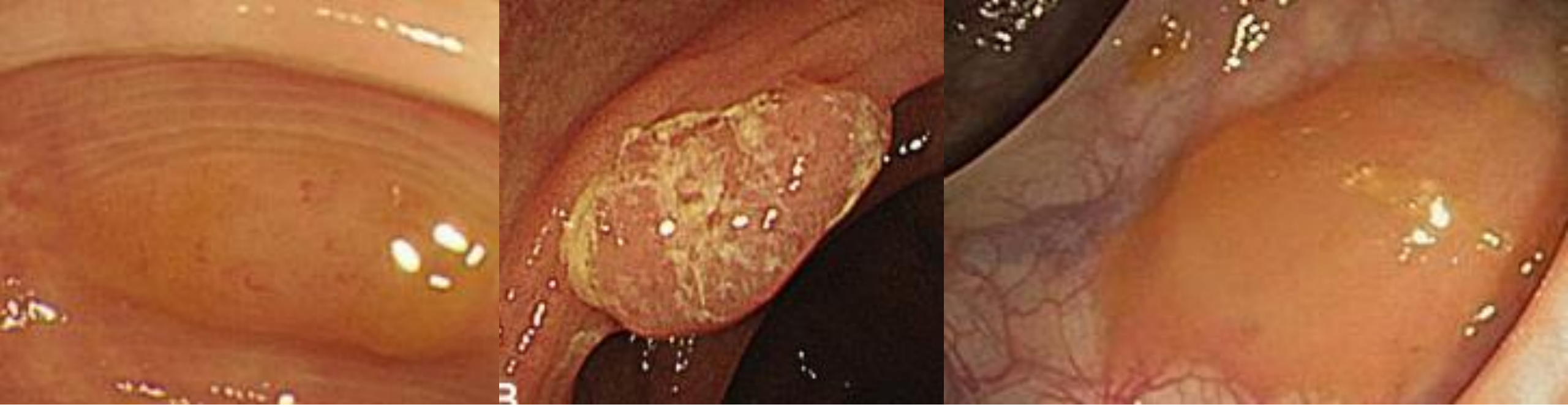
Adenoma Detection Rate ADR

UK key performance indicators GUT 2016
ESGE Draft 2016 not published yet

(15%) 20%
25%

PDR
40%





sessile serrated adenoma SSA

- right sided
- mucus cap
- aggressive biology

Complete
Clean
Expertise

best devices to detect polyps

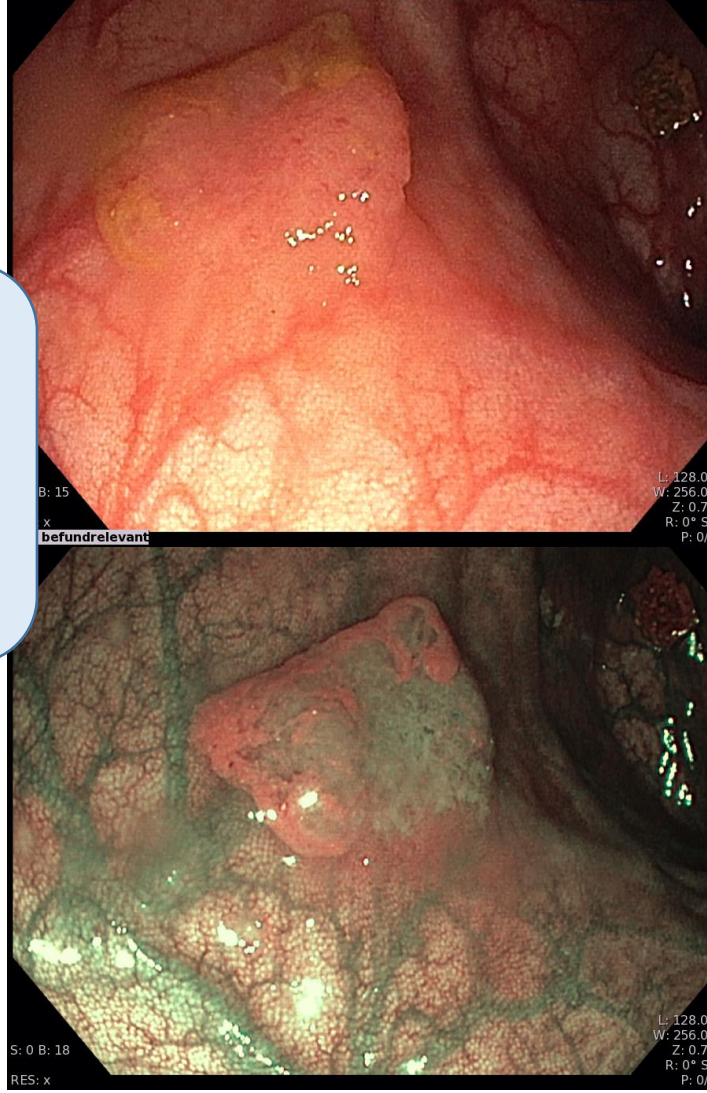
-video-endoscopes „chip on the tip“
-HD screens

-enhance optical discrimination
-look behind the folds

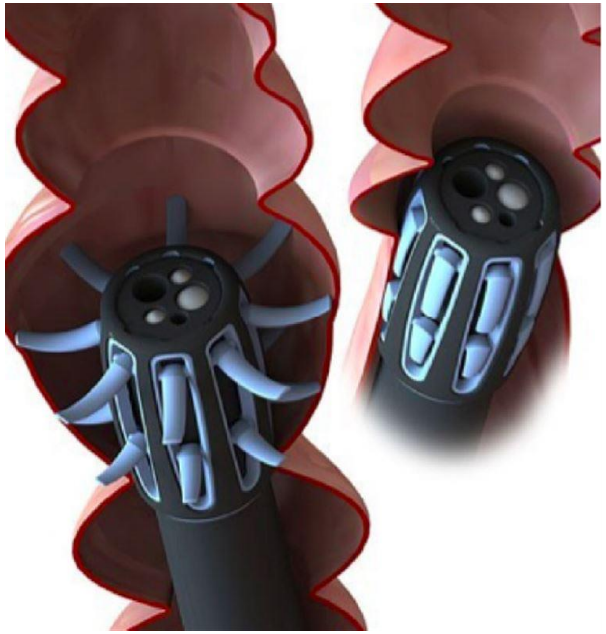
-Position of the patient
-Spasmolytics

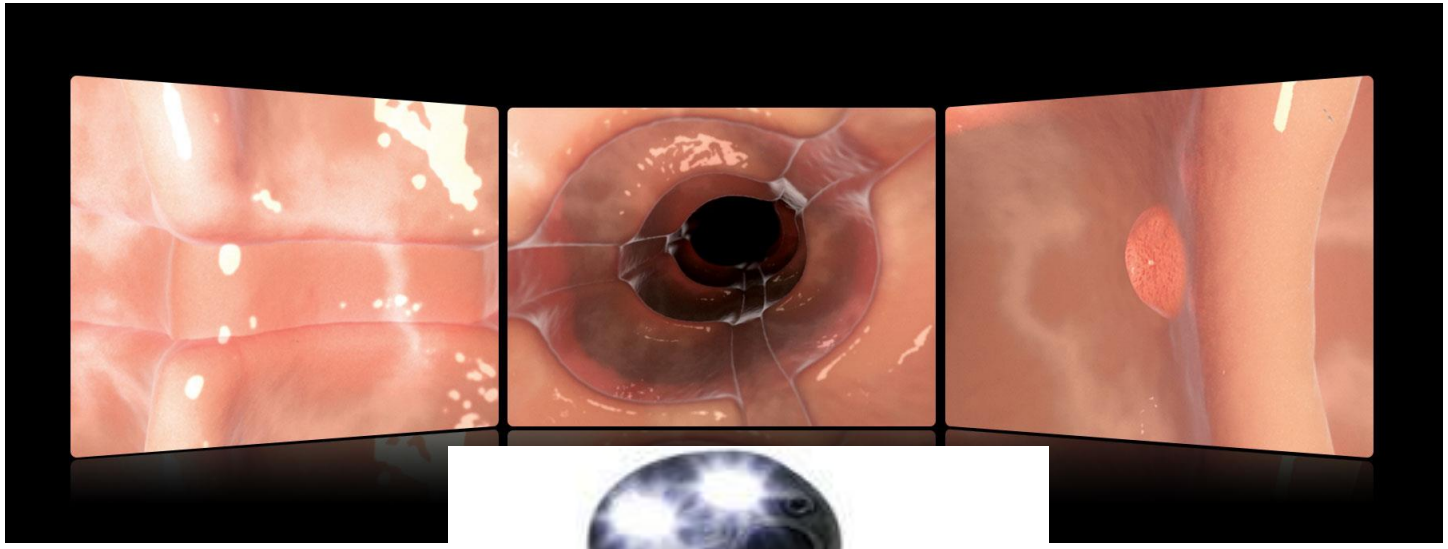
No evidence so far

-Staining

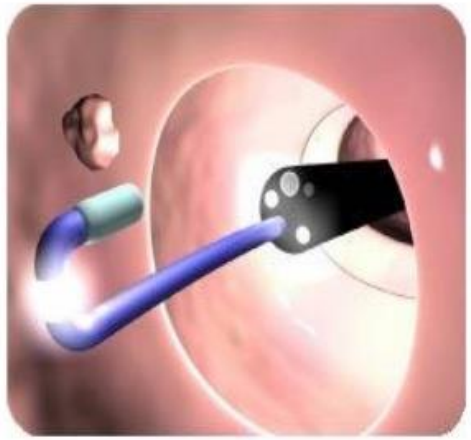


-Virtual chromoendoscopy

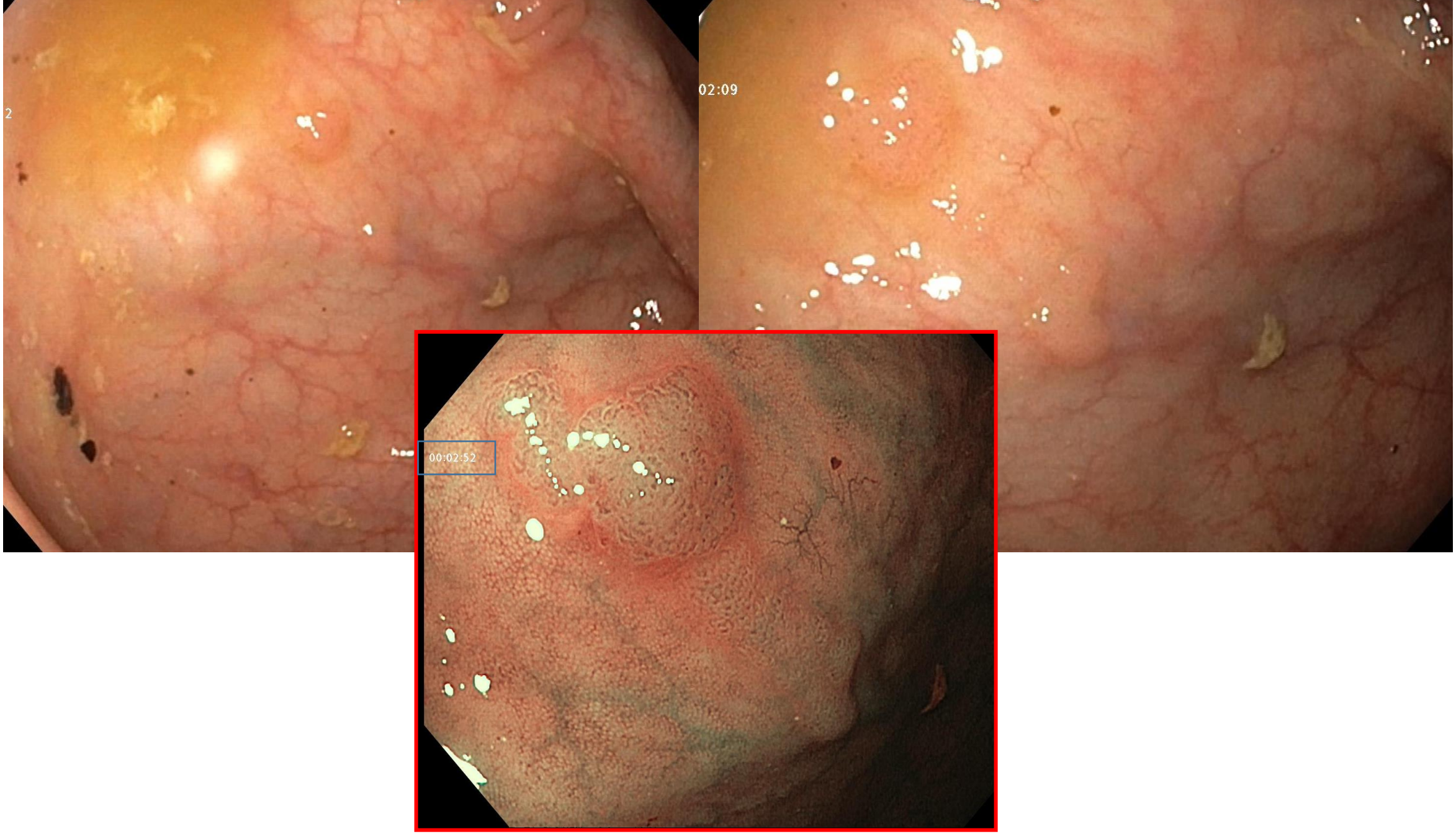




Third eye



No evidence so far but....



Qualitätsparameter der Koloskopie

	UK 2016	ESGE 2016
Bowel preparation	90%	
Cecal intubation rate	90%	
Adenoma detection rate	>25%	
Polyp detection rate		40%
Withdrawal time	>6 (10) min	
polyp retrieval	90%	
correct resection		80%
Colonoscopies/year	100	100-300
Tattoo resection site		asked
Complications		
-perforation	0.5‰	
-polypectomy perf	2‰	
-polypectomy bleeding	5‰	5‰ readmission 7d

	UK 2016	ESGE 2016	SGGSSG
Bowel preparation	90%		90%
Cecal intubation rate	90%		90%
Adenoma detection rate	>25%		-
Polyp detection rate		40%	
Withdrawal time	>6 (10) min		>6min
polyp retrieval	90%		-
correct resection		80%	-
Colonoscopies/year	100	100-300	200
Tattoo resection site		asked	
Complications			
-perforation	0.5‰		
-polypectomy perf	2‰		1‰
-polypectomy bleeding	5‰	5‰ readmission 7d	1%

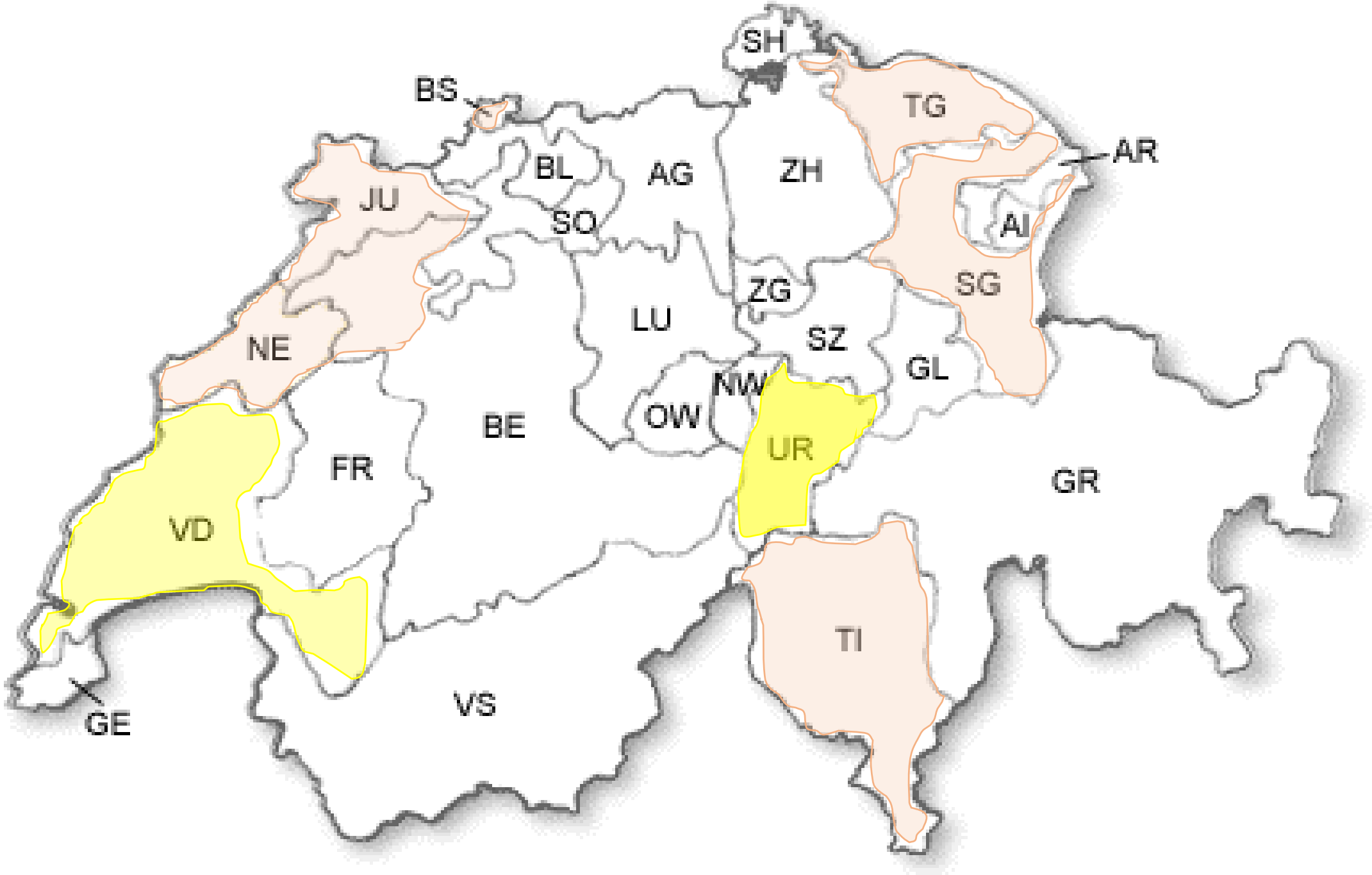
mandatory

- **adenoma detection rate**

polyp retrieval	CH: yes-no
correct resection	CH: complete yes-no
Tattoo resection site	CH: -

CH- Report 100%
CH- Surveillance 100%

1. individual software solution
2. established screening programms
3. nationwide survey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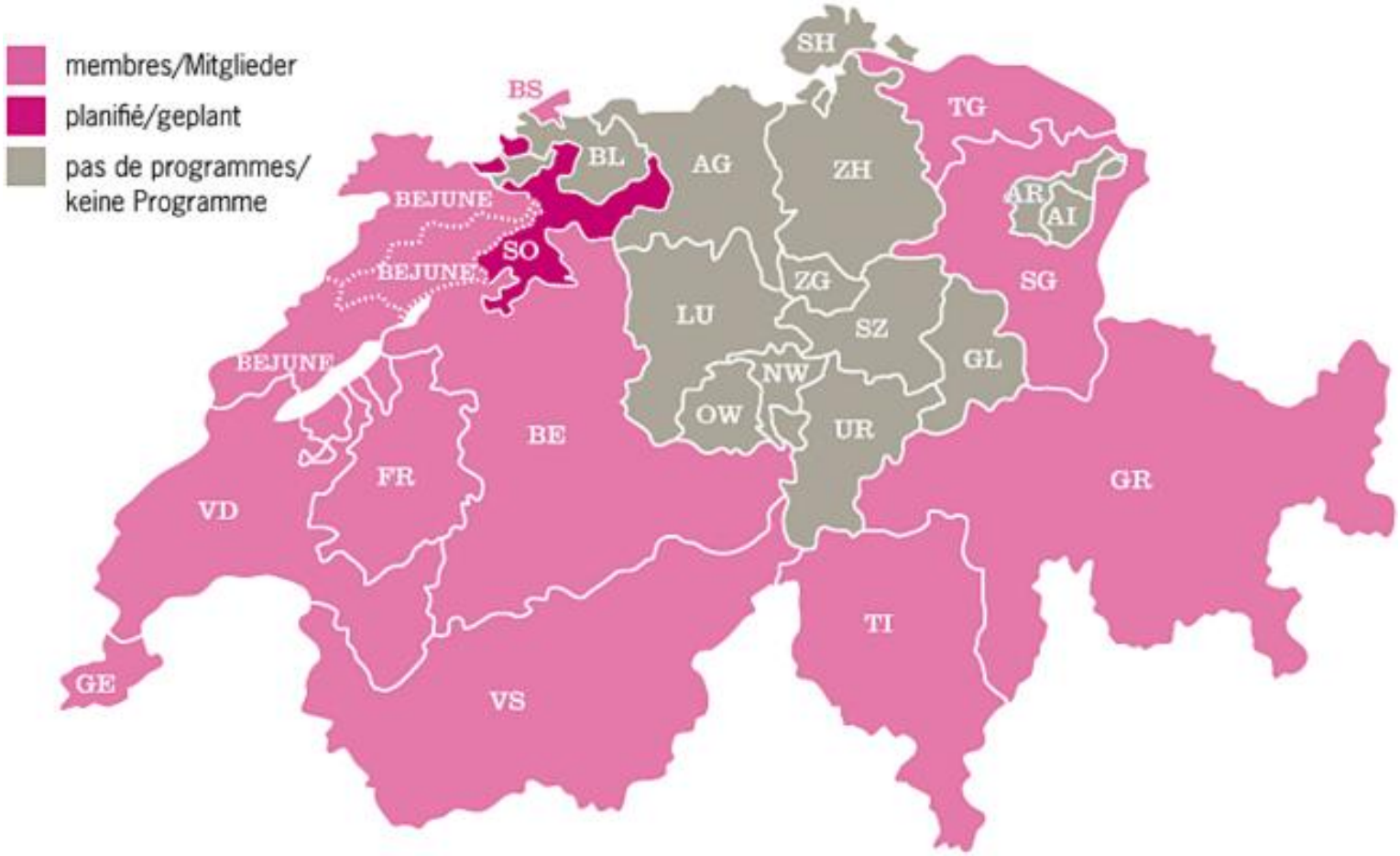
Swiss Cancer screening

Verband Westschweiz 2008
Brustkrebs - Kolonkarzinom



standards
no franchise

Web-based protocol
anonymized

ADR per endoscopist

ORIGINAL ARTICLE: Clinical Endoscopy GI endoscopy 2014

Longitudinal assessment of colonoscopy quality indicators: a report from the Gastroenterology Practice Management Group

Lyndon V. Hernandez, MD, MPH,[1] Thomas M. Deas, MD,[2] Marc F. Catalano, MD,[3] Nalini M. Guda, MD,[3] Lin Huang, MD,[4] Scott R. Ketover, MD,[5] Kyle P. Etzkorn, MD,[6] Kumar G. Gutta, MD,[2] Steve J. Morris, MD,[7] Michael J. Schmalz, MD,[3] Dominic Klyve, PhD,[8] John I. Allen, MD, MBA[9]

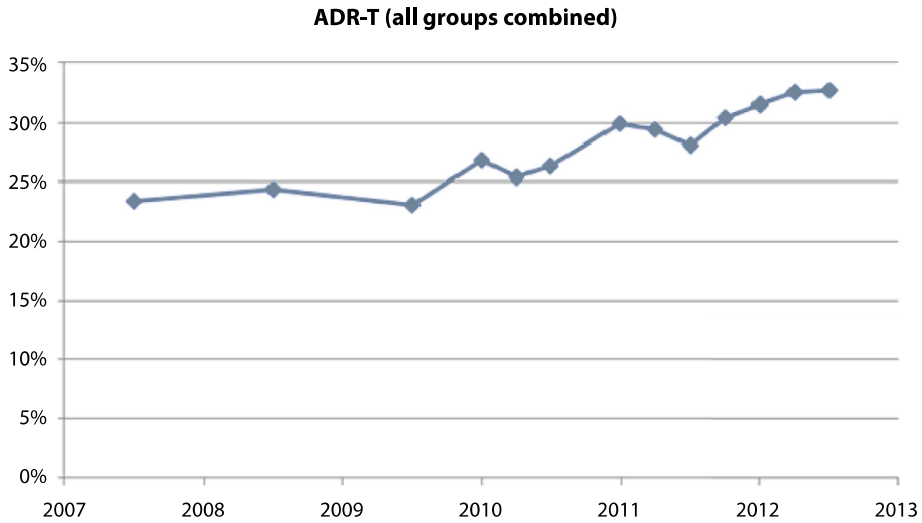
Milwaukee, Wisconsin, USA

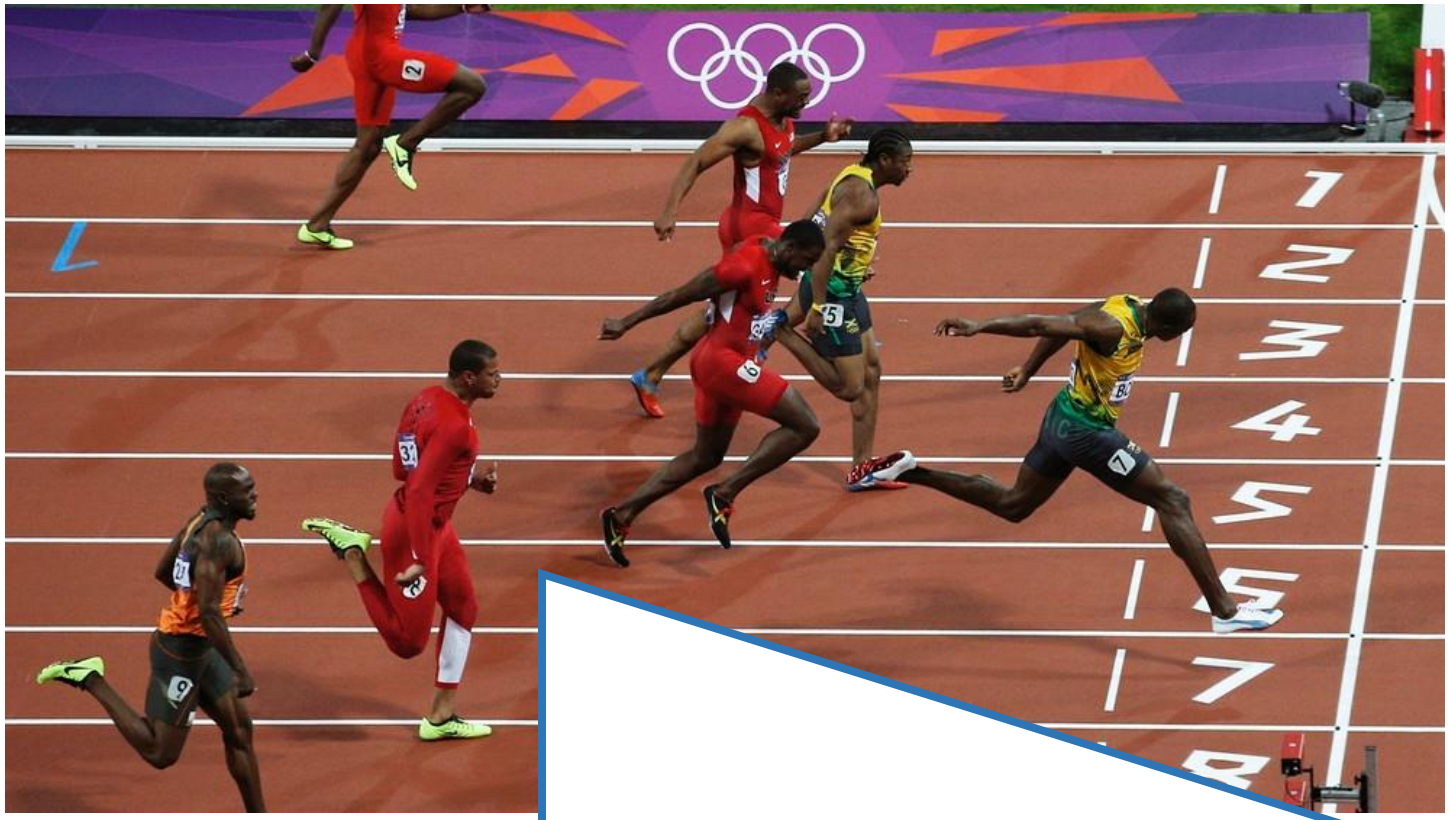
Gastroenterology Practice Management Group =

10-75 doctors per group

5000-60'000 endoscopies per year and group

370 gastroenterologists 6y follow up





Qualitätsparameter sind da
Qualitätsparameter sind bekannt
Qualitätsparameter werden eingehalten

ADR noch nicht messbar