

CONVEGNO NAZIONALE

GISCoR

Gruppo Italiano Screening ColoRettale

Mantova

8-9 Novembre 2012

**Valutazione
performance degli
endoscopisti**



Variability in colonoscopy efficacy

Cohort studies

Author	Population	Endpoint	Person-years of follow up	Follow up duration (years)	CRC endpoint reduction
Winawer	Post-Polypectomy	Incidence	8,401	5.9	76%
Citarda	Post-Polypectomy	Incidence	14,211	10.5	66%
Robertson	Post-Polypectomy	Incidence	10,786	3.7	5%
Singh H	Negative colon.	Incidence	147,781	4.6	31%
Lakoff J	Negative colon.	Mortality	110,402 [§]	14	55%
Brenner H	Negative colon.	Incidence	6,581	11.9	100%
Rex	Screening	Incidence	10,492	14.7	48%

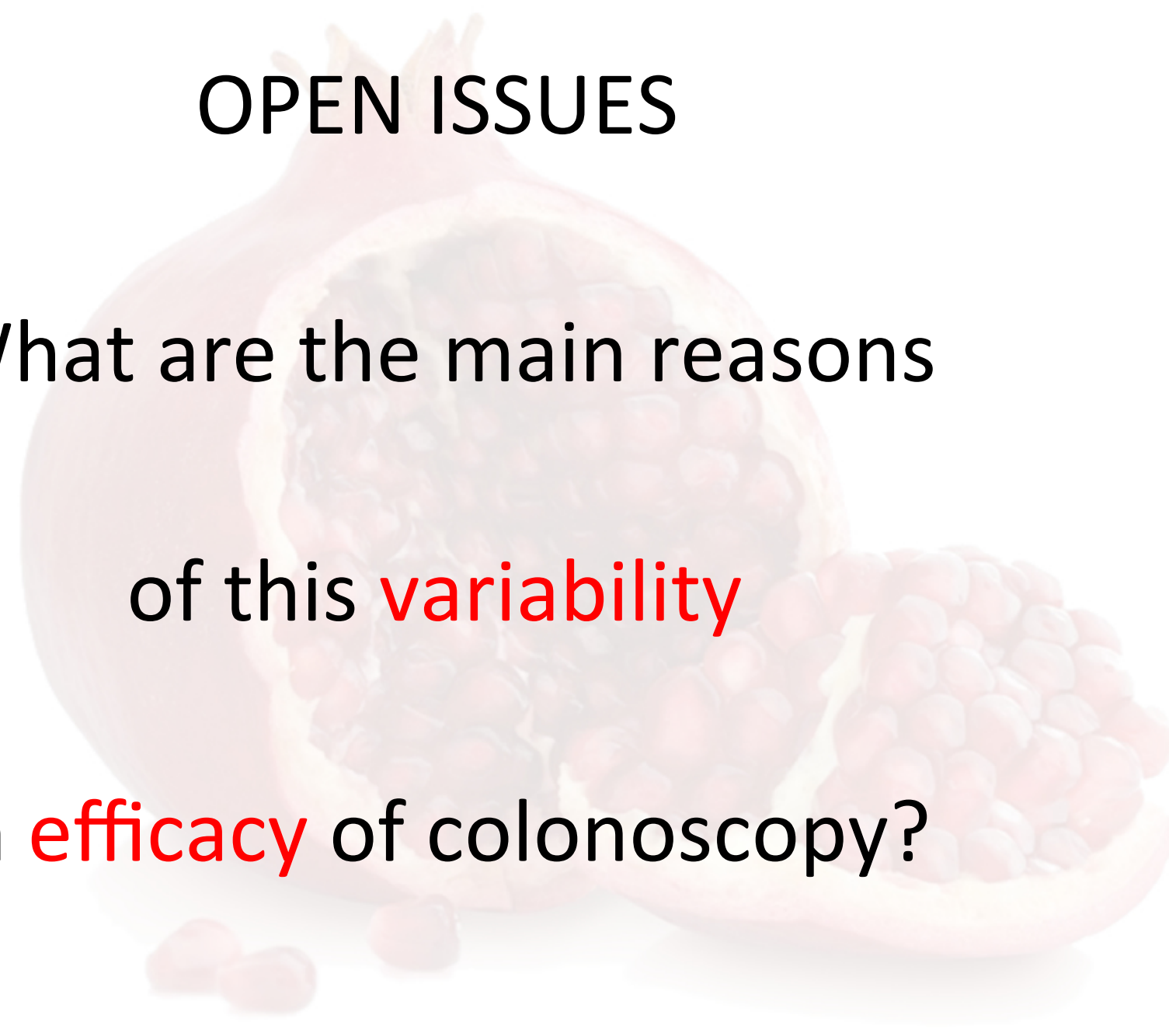
Variability in colonoscopy efficacy

Case-control studies

Author	Population	Endpoint	CRC cases	No-CRC controls	CRC endpoint reduction
Brenner H	Colonoscopy	Incidence	1,688	1,932	77%
Brenner H	Neg. colonoscopy	Incidence	380	485	74%
Muller AD	Colonoscopy	Incidence	16,351	16,351	45-49%
Baxter N	Colonoscopy	Mortality	10,292	51,460	31%

OPEN ISSUES

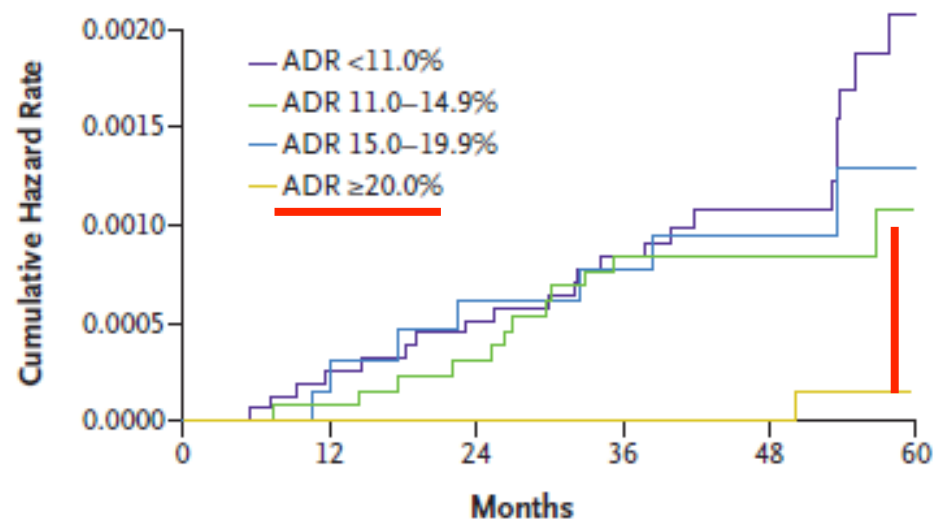
What are the main reasons
of this **variability**
in **efficacy** of colonoscopy?



ORIGINAL ARTICLE

Quality Indicators for Colonoscopy and the Risk of Interval Cancer

Michal F. Kaminski, M.D., Jaroslaw Regula, M.D., Ewa Kraszewska, M.Sc.,
Marcin Polkowski, M.D., Urszula Wojciechowska, M.D., Joanna Didkowska, M.D.,
Maria Zwierko, M.D., Maciej Rupinski, M.D., Marek P. Nowacki, M.D.,
and Eugeniusz Butruk, M.D.



HR 10
95% CI 1.4-87

No. at Risk

ADR <11.0%	15,883	15,805	15,744	15,669	9355	4717
ADR 11.0–14.9%	13,281	13,223	13,182	13,120	7571	4003
ADR 15.0–19.9%	6,607	6,582	6,562	6,539	4022	2529
ADR ≥20.0%	9,255	9,235	9,202	9,166	7155	5548

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Table 2. Characteristics of 186 Endoscopists, According to the Adenoma Detection Rate.*

Characteristic	Adenoma Detection Rate				Total
	<11.0%	11.0 to 14.9%	15.0 to 19.9%	≥20.0%	
Colonoscopists — no. (%)	80 (43.0)	46 (24.7)	34 (18.3)	<u>26 (14.0)</u>	186 (100.0)
No. of colonoscopies included in study					
Median (interquartile range)	130 (54–230)	161 (98–304)	125 (98–194)	178 (112–654)	145 (80–262)
Range	30–1824	34–1848	35–1589	32–1737	30–1848
No. of interval cancers/100,000 person-yr of follow-up	33.6	22.1	25.5	<u>2.4</u>	22.3

Relationship between Detection of Adenomas by Flexible Sigmoidoscopy and Interval Distal Colorectal Cancer

Shari S. Rogal, Paul F. Pinsky, Robert E. Schoen



Table 3: Relationship between the adjusted adenoma and polyp detection rate and interval cancer

Quartile of Examiners' Rates (% detected)	Number of Cancers	Number of Exams Among Eligible Subjects [†]	Interval Cancer Rate (per 10,000 exams)
Quartile of Adjusted Adenoma Detection Rate			
1 st (3.6-9.3)	13	17,361	<u>7.5</u>
2 nd (9.4-12.1)	8	23,957	<u>3.3</u>
3 rd (12.2-14.3)	8	13,947	5.7
4 th (14.4-24.5)	3	11,446	<u>2.6</u>

Relationship between Detection of Adenomas by Flexible Sigmoidoscopy and Interval Distal Colorectal Cancer

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Table 4. Logistic Regression of interval cancer by examiner detection rates

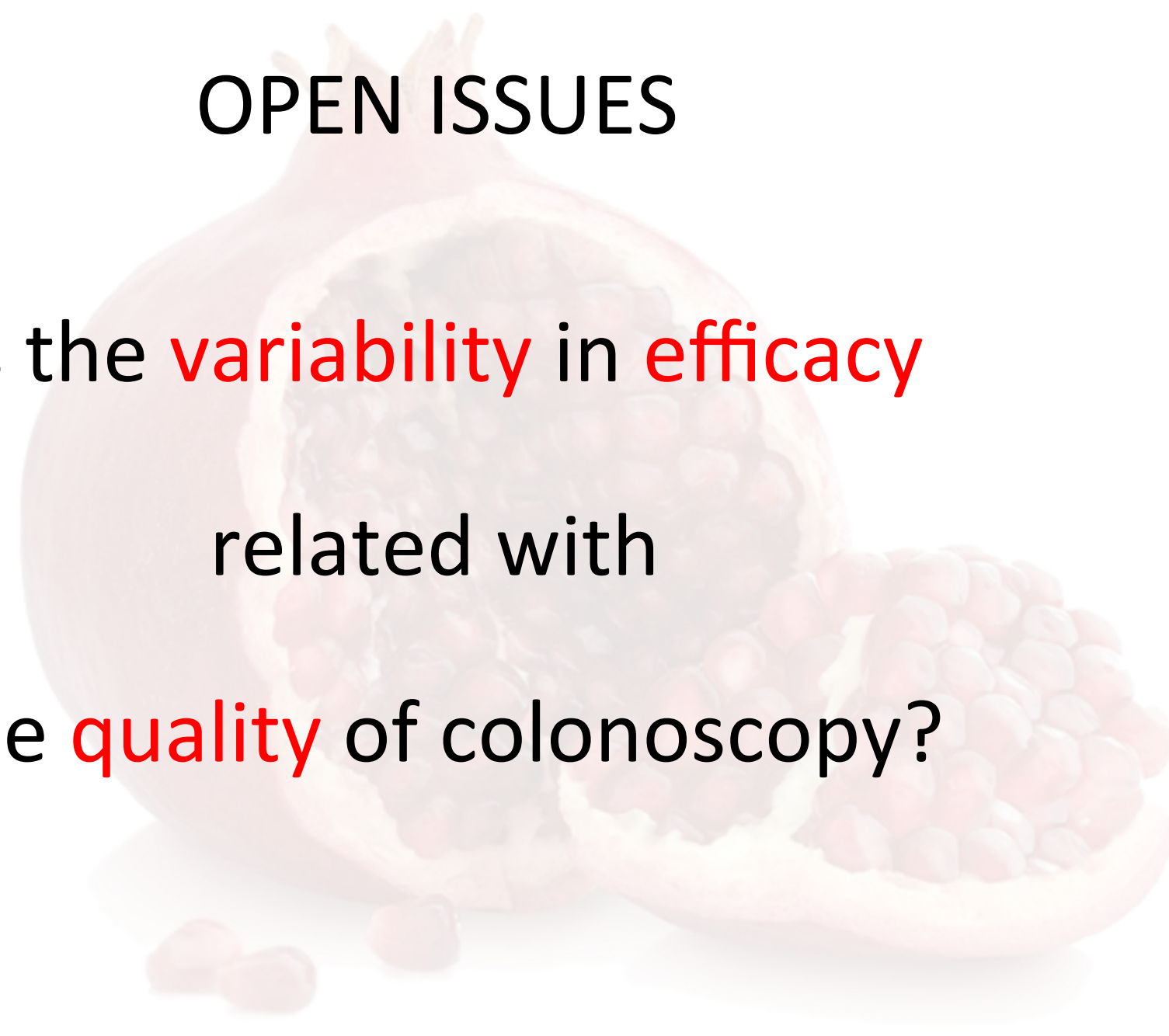
	OR (95% CI)	P value
Examiner Categorical Rates (1st quartile vs 2nd thru 4th quartile)		
Adenoma Detection Rate †	2.0 (0.98-4.0)	0.06
Distal Adenoma Detection Rate	2.4 (1.1-5.0)	<u>0.02*</u>
Proximal Adenoma Detection Rate	1.8 (0.9-3.8)	0.10
Polyp detection Rate	1.6 (0.8-3.2)	0.22

Predictors of interval CRC

Author	Study design	Population	Endoscopy predictors	Biology Predictors
Kaminsky M	Cohort	Screening	Adenoma DR (<20%)	NA
Brenner H	Case-control	Colonoscopy	Incompleteness, FOBT+	Female sex, G3-G4
Cooper GS	Cohort	Medicare	Polyp DR (<24%), non-GI, OC Volume	Proximal location
Baxter N	Cohort	Colonoscopy	Incompleteness, Polyp DR (<24%), non-GI specialty,	Female sex

OPEN ISSUES

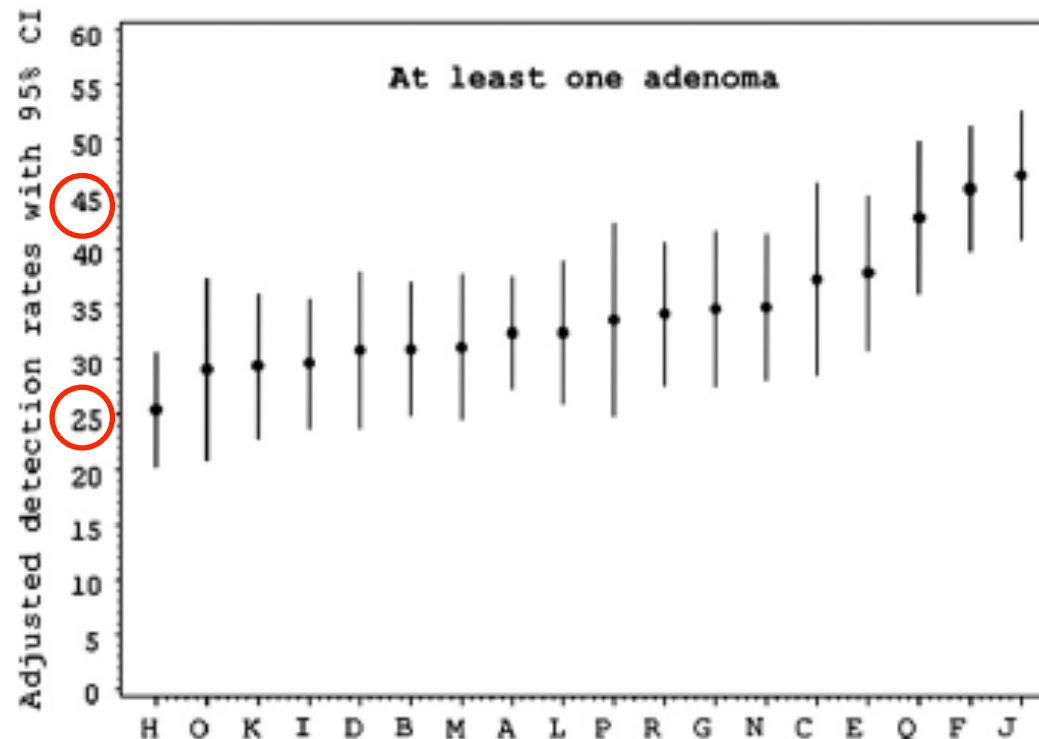
Is the **variability** in **efficacy**
related with
the **quality** of colonoscopy?

A large, semi-transparent image of a pomegranate with its seeds (arils) exposed, serving as a background for the text. The pomegranate is cut open, showing the red seeds inside. The image is centered and occupies most of the slide's background.

Variations between endoscopists in rates of detection of colorectal neoplasia and their impact on a regional screening program based on colonoscopy after fecal occult blood testing

Jean-François Bretagne, PhD, Stéphanie Hamonic, Christine Piette, MD, Sylvain Manfredi, PhD, Emmanuelle Leray, MD, Gérard Durand, MD, Françoise Riou, PhD

18 endoscopists —————> **3 462 colonoscopies**

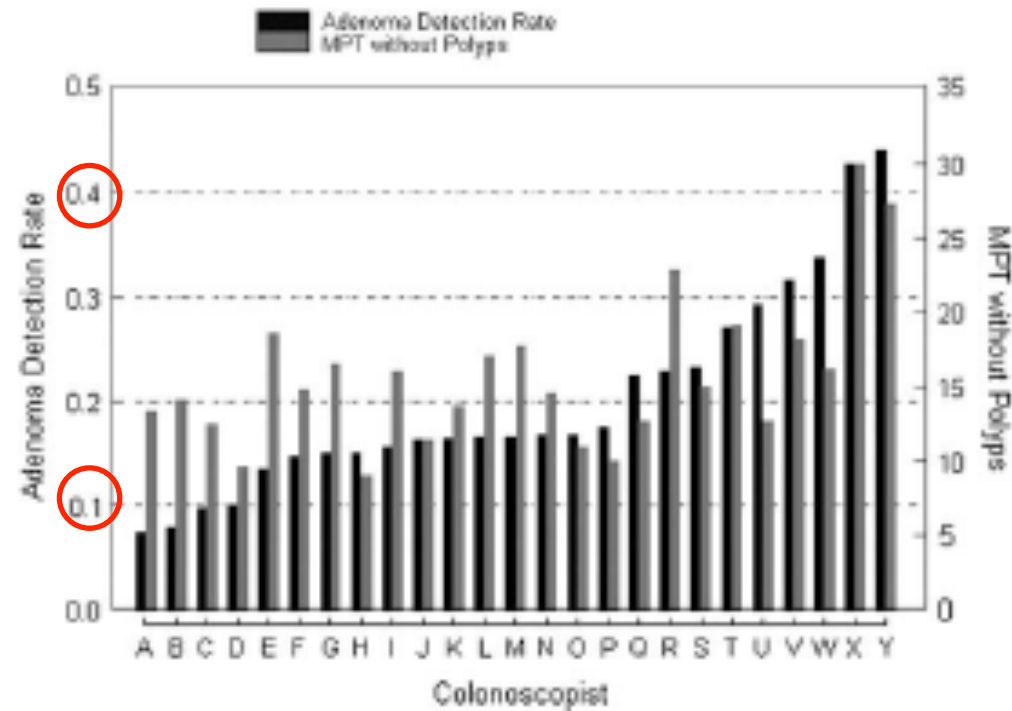


Variation in polyp detection rates at screening colonoscopy CME

Thomas F. Imperiale, MD, Elizabeth A. Glowinski, RN, Beth E. Juliar, MS, MA, Faouzi Azzouz, MS,
David E. Ransohoff, MD

Indianapolis, Indiana, USA

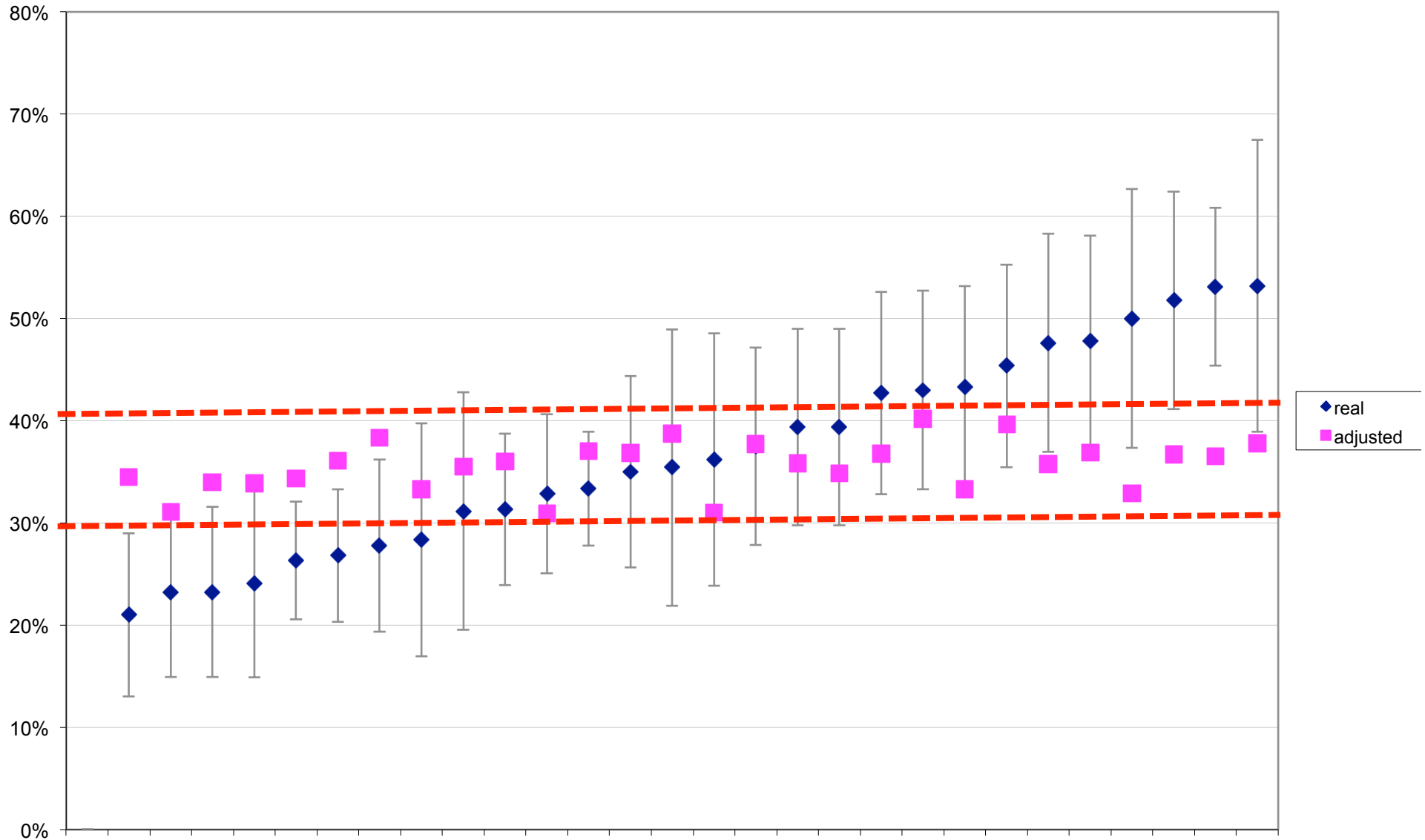
25 endoscopists → **2 664 colonoscopies**



**30 centres
(144 endoscopists)**



3 150 colonoscopies



**30 centres
(144 endoscopists)**



3 150 colonoscopies

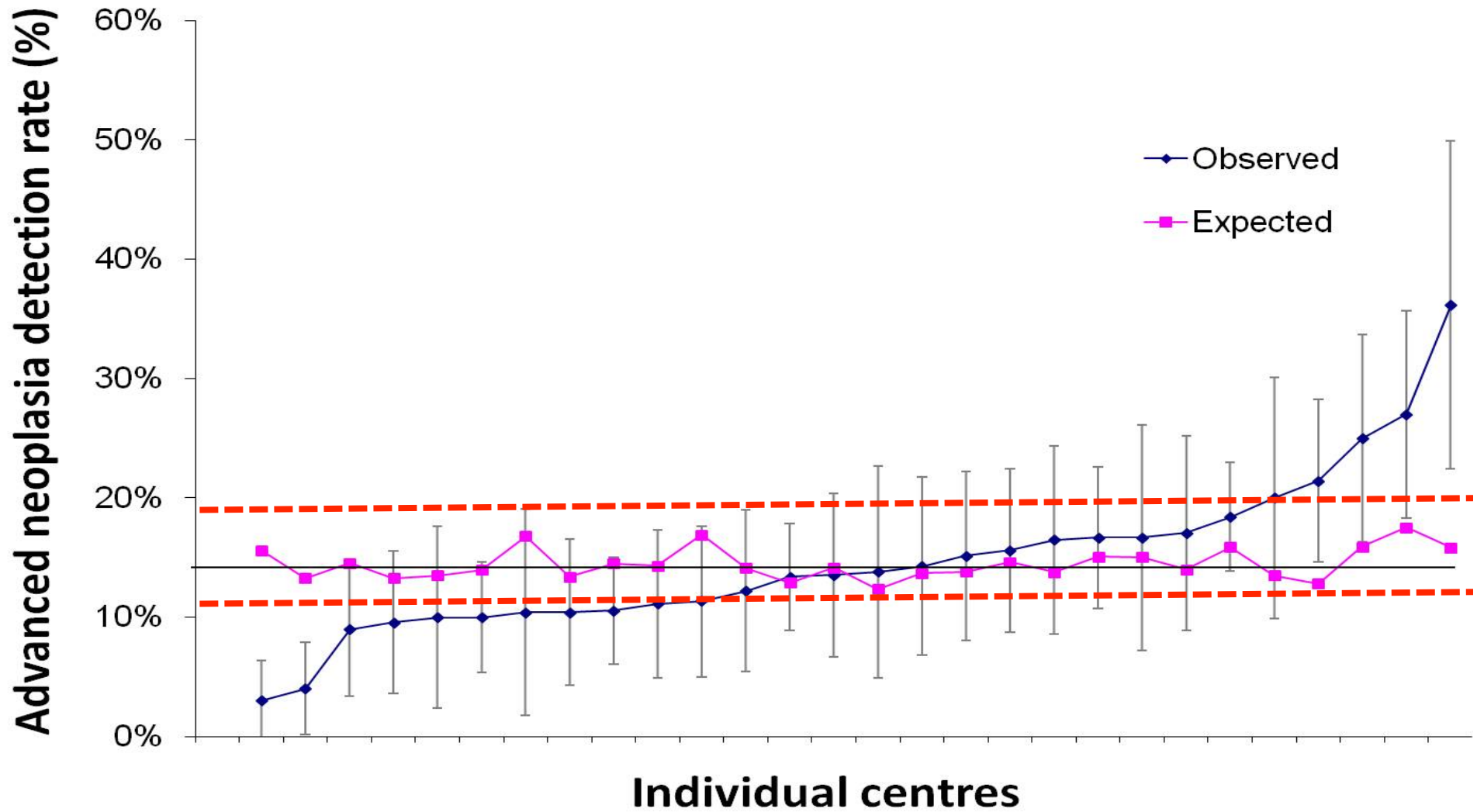


Table 2. Multivariate analysis for the detection of polyps and neoplastic lesions. OR: odds ratio.

30 centres
(144 endoscopists) → **3 150 colonoscopies**

Variable	Patients with polyps	Patients with neoplasia	Patients with advanced neoplasia
	OR (95% CI)		
Patient characteristics			
Age	2.2 (1.8-2.6) *	2.2 (1.9-2.7) *	2.1 (1.7-2.7) *
BMI	1.2 (1.1-1.4) *	-	-
Male sex	1.5 (1.3-1.8) *	1.6 (1.3-1.9) *	1.6 (1.3-2) *
Smoking history	1.5 (1.2-1.7) *	1.3 (1.1-1.6) *	-
Alcohol history	1.2 (1.1-1.5) *	1.3 (1.1-1.5) *	1.4 (1.1-1.8) *
Alarm symptoms	-	-	1.4 (1.1-2) **
Surveillance	-	-	0.5 (0.4-0.7) *
Endoscopic setting			
Withdrawal time measurement	-	1.3 (1.1-1.5) *	1.3 (1.1-1.6) ***



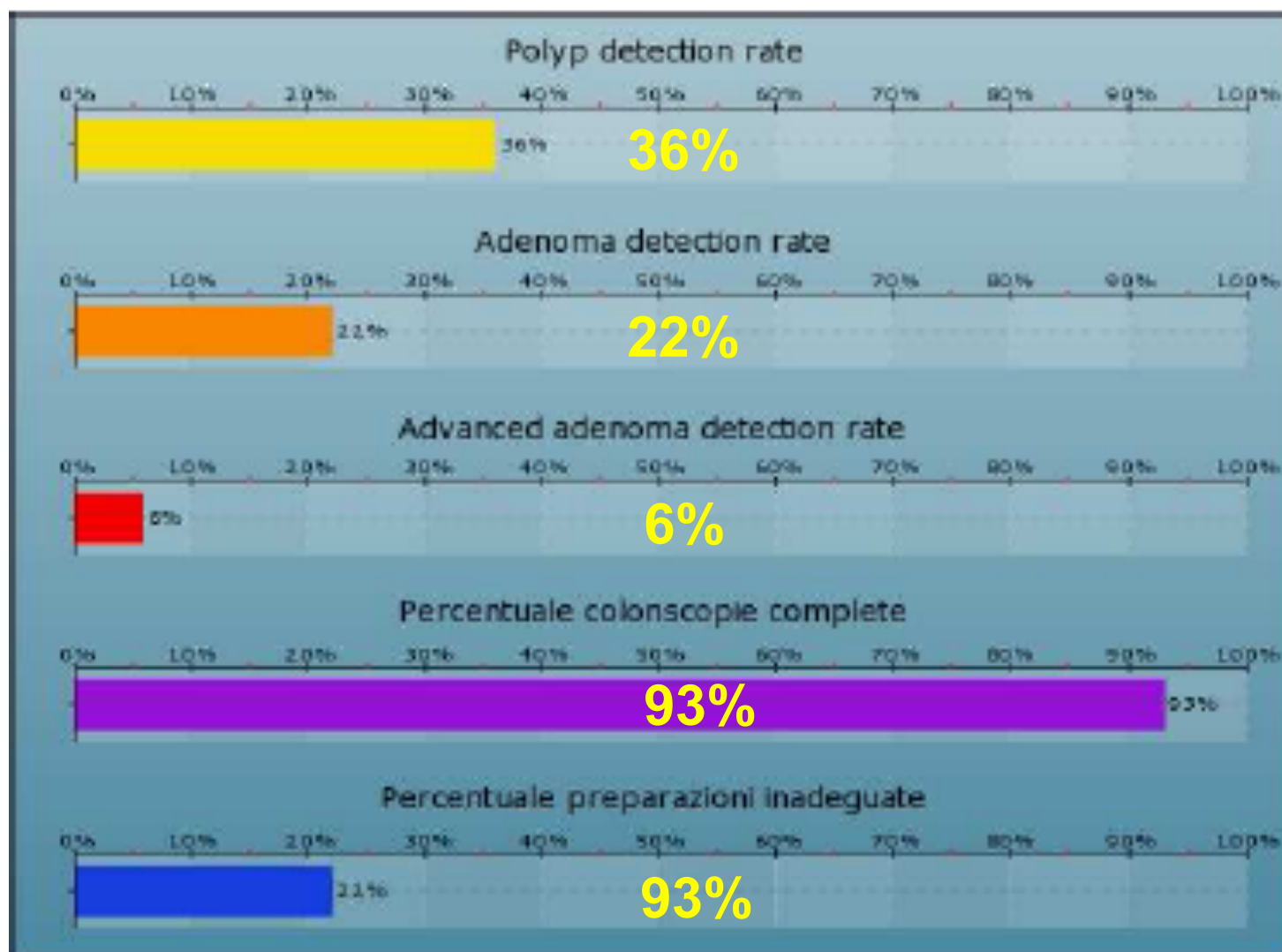
Scopo

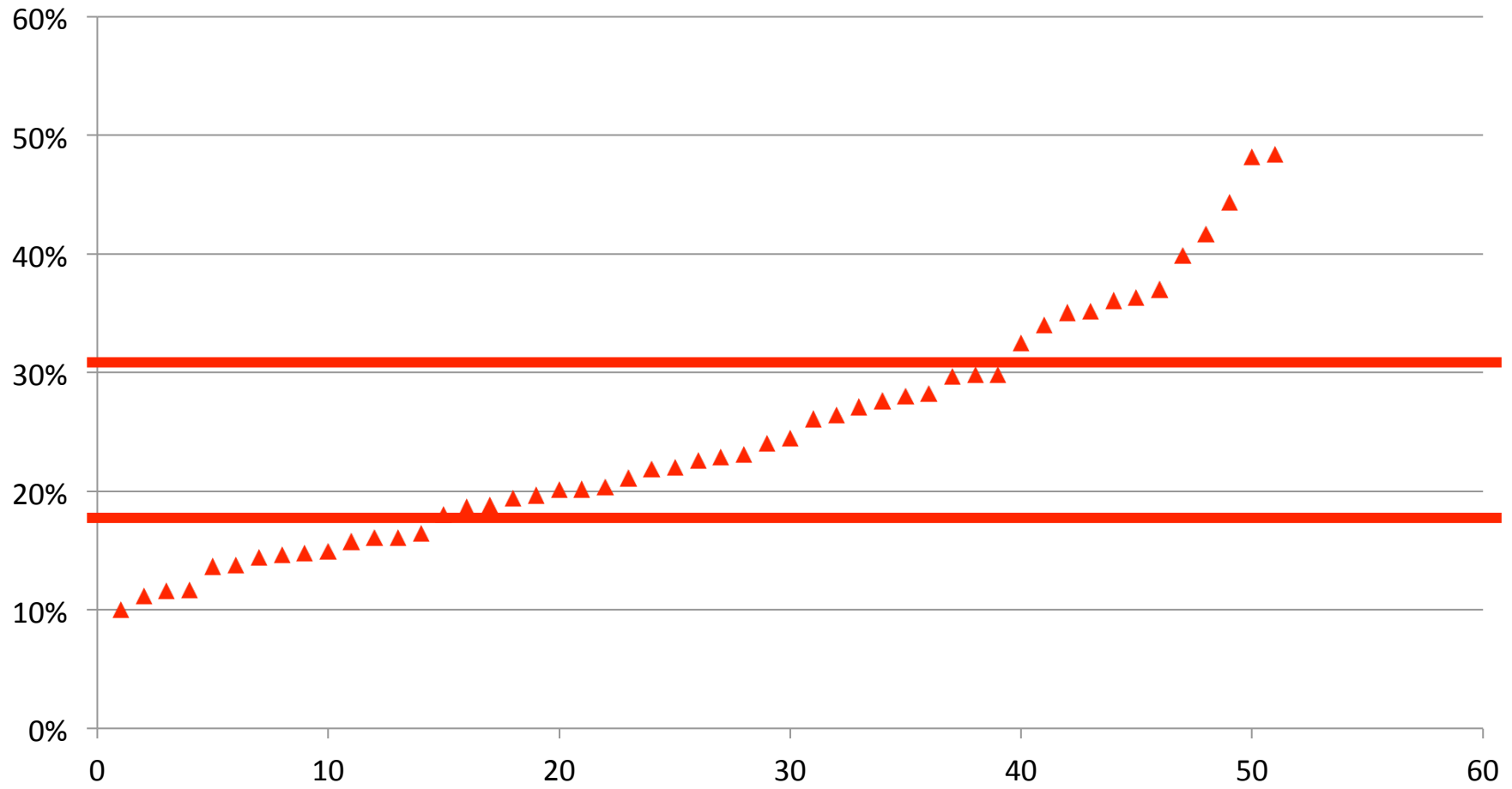
1. Valutare l'ADR di singoli Endoscopisti italiani per definire un benchmark che rispecchi non solo la qualità dell'Endoscopia, ma anche la prevalenza attesa di patologia neoplastica. Per tale scopo, sono necessarie almeno 200 endoscopie per Endoscopista.
2. Provvedere a fornire un feed-back a ogni Endoscopista della propria performance in relazione ai benchmark calcolati.
3. Valutare se tale feed-back conduce a un progressivo miglioramento della qualità dell'Endoscopia.



Metodi

1. Raccolta prospettica consecutiva di colonscopie effettuate in 20-30 Centri endoscopici italiani, selezionati per la loro diversa rappresentatività geografica e per la loro performance in precedenti studi clinici. Tale raccolta verrà effettuata su formato elettronico.
2. Calcolo in real-time della media degli Indicatori di Qualità (ADR, polyp detection rate, advanced neoplasia detection rate).
3. Feed-back a ogni Endoscopista della propria performance in relazione ai benchmark medi calcolati.





CONVEGNO NAZIONALE

GI
Gruppo Itali

8-9

Progetto EQUiPE (Evaluation of Quality Indicators of the Performance of Endoscopy)



ADR in FIT+



E di conseguenza

- Sistematica rilevazione (“ricostruzione”) della ADR individuale nei tracciati di screening
- Performance individuale / setting strutturale
- Performance individuale / setting extrastrutturale ? (Patologo?)
- Gli altri indicatori (completezza, toilette...)
- Auditing in relazione ai CI
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