

# VIII CONGRESSO NAZIONALE GISCoR

## WORKSHOP SCREENING CCR REGIONE LAZIO



ROMA, 3 E 4 OTTOBRE 2013

Auditorium Antonianum, Viale Manzoni 1

Miglioramento continuo della qualità:  
il protocollo diagnostico-terapeutico  
ed il re-training degli Endoscopisti

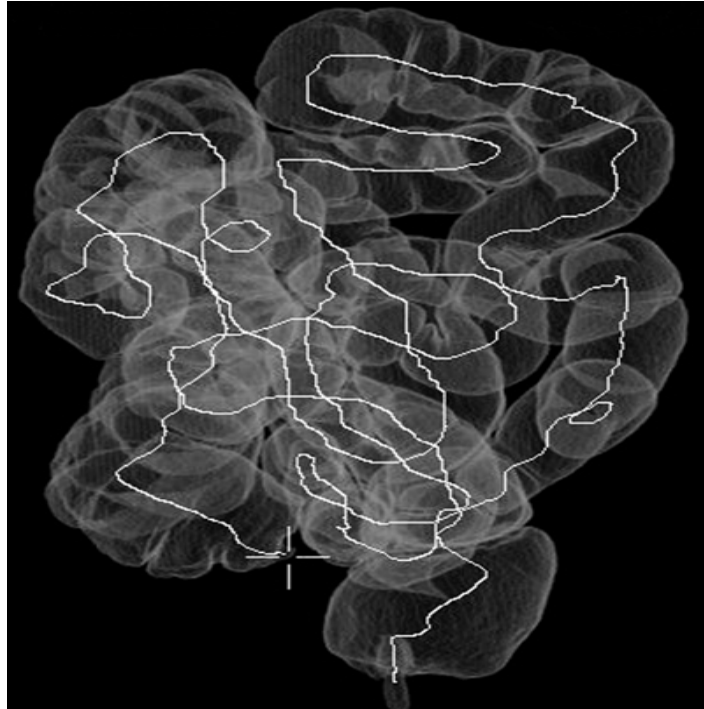
Lucio Petruzziello

Policlinico A. Gemelli

EETC - Roma



# Colonoscopy: a “complex” procedure ...



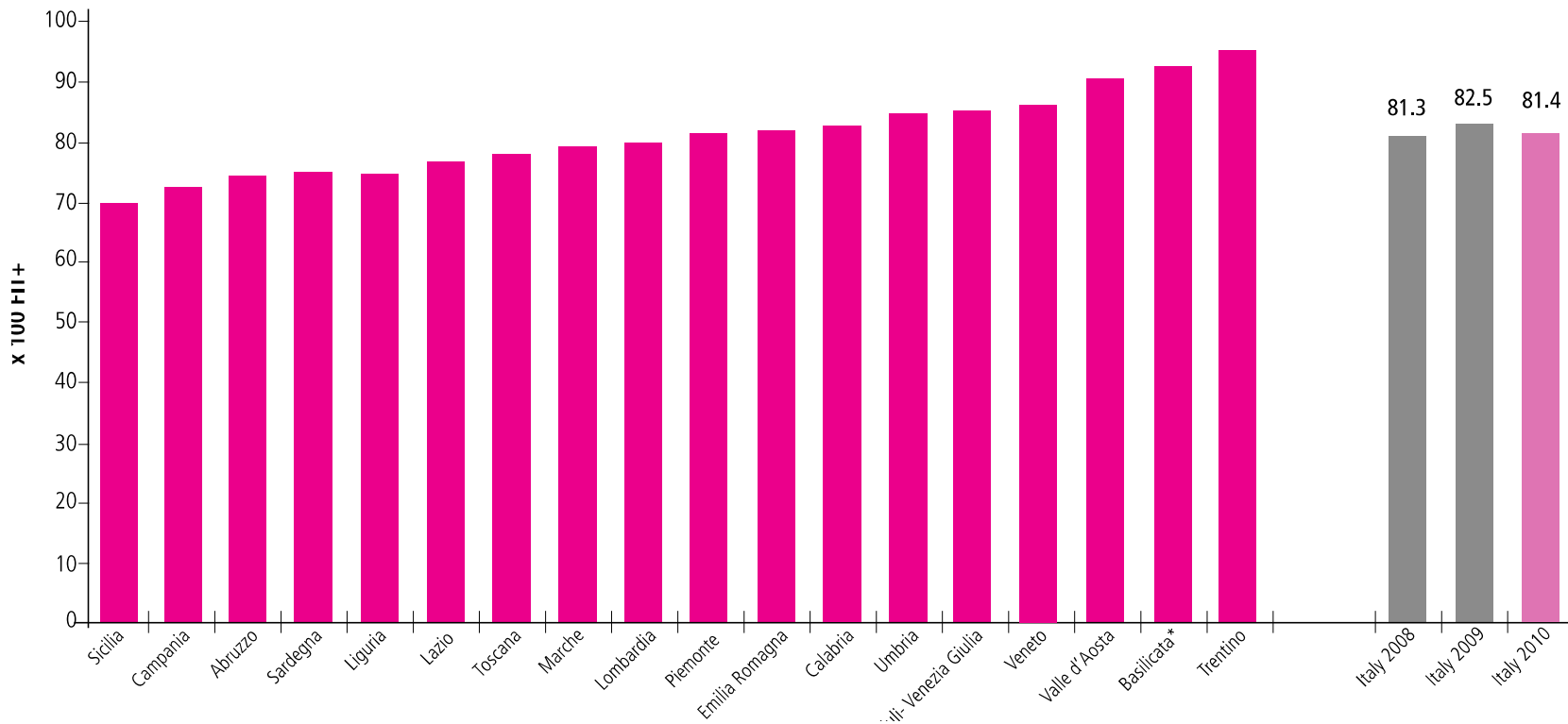


# Italian CRC Screening: II Level Quality Indicators

<b>proporzione aderenti al II livello</b>	<b>&gt; 85%</b>	<b>&gt; 90%</b>
<b>proporzione di colonscopie complete</b>	<b>&gt; 85%</b>	<b>&gt; 90%</b>
<b>proporzione di polipectomie non contestuali</b>	<b>&lt; 10%</b>	
<b>tasso di identificazione (carcinoma)</b>		
primi esami	<b>&gt; 2.0 per mille</b>	<b>&gt; 2.5 per mille</b>
esami successivi	<b>&gt; 1.0 per mille</b>	<b>&gt; 1.5 per mille</b>
<b>tasso di identificazione ( adenoma avanzato)</b>		
primi esami	<b>&gt; 7,5 per mille</b>	<b>&gt; 10,0 per mille</b>
esami successivi	<b>&gt; 5,0 per mille</b>	<b>&gt; 7,5 per mille</b>
<b>VPP del FOBT alla colonscopia per AA o K</b>		
primi esami	<b>&gt; 25%</b>	<b>&gt; 30%</b>
esami successivi	<b>&gt; 15%</b>	<b>&gt; 20%</b>

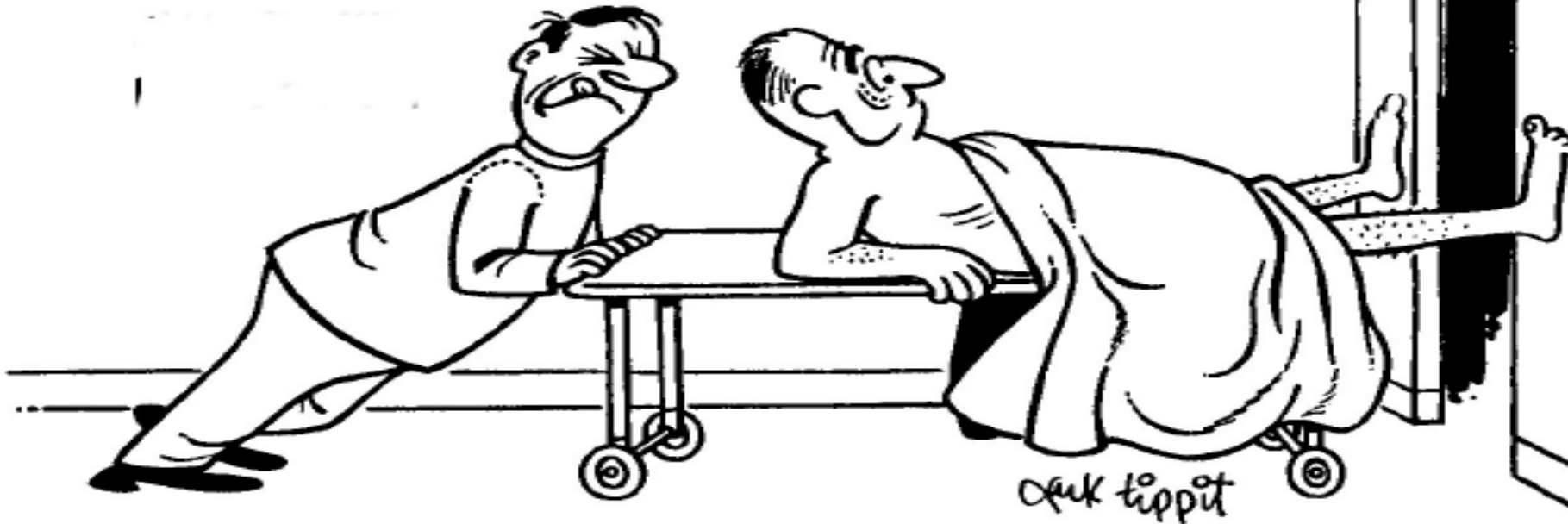
# CRC Screening in Italy (2010)

## Adhesion to Colonoscopy for FOBT+



Zorzi M. *Lo screening coloretale in Italia: survey 2010*

COLONSCOPIA



# Continuous Quality Improvement (CQI)

# Screening Colonoscopy Standards in Italy

- Completion Rate > 85% (acceptable) or > 90% (desirable)
- Withdrawal time (6'-10')
- Good to Excellent bowel prep
- Adenomas yield in > 15% of asymptomatic pts
- Complications Registry
- Patient's satisfaction questionnaire
- Immediate polypectomy for polyps at low risk for complications (< 2 cm?)
- Biopsy (?) and delayed polypectomy for other polyps

*Source: Italian Ministry of Health. 2005-2006*



# Credentialing & Certification

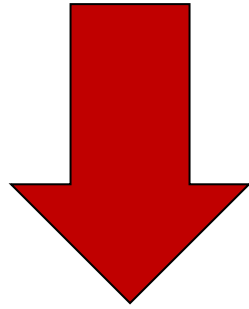
**PREVENZIONE E DIAGNOSI PRECOCE  
DEI TUMORI DEL COLON RETTO**

**MODELLO ORGANIZZATIVO E PROTOCOLLO  
DIAGNOSTICO TERAPEUTICO DEI PROGRAMMI  
DI SCREENING NELLA REGIONE LAZIO**

## **Formazione operatori dedicati allo screening**

- Personale medico fornito di specializzazione in endoscopia o almeno 10 anni di attività in centri di endoscopia
- Ogni medico dedicato deve aver eseguito, nell'anno precedente, almeno 300 colonscopie
- Ogni medico dedicato deve essere incorso, nei due anni precedenti, in meno del 2‰ di complicazioni maggiori

How to support  
the Endoscopists  
who do not achieve  
the Standards ?



**Retraining**

# Keyword

**Retraining**



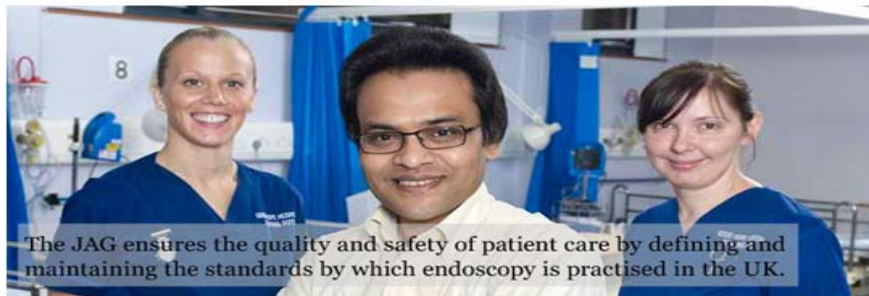
*Rieducazione, Riqualificazione*



*Miglioramento /  
Perfezionamento di Competenze e Performances*



***Nuovo Training***



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JAG Pooling of gastrointestinal endoscopy referrals  
March 2011

21 Feb 11  
JAG Trainee Certification Fee Increase

21 Feb 11  
JAG Trainee Certification

21 Feb 11  
E-Portfolio Update

09 Feb 11  
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Basic Skills in Colonoscopy  
Jun 11

08 Jun	Torbay	Fully Booked
08 Jun	Wolverhampton	Fully Booked
14 Jun	Liverpool	Fully Booked
21 Jun	Sheffield	Only 1 place left
27 Jun	Yorkshire	Fully Booked

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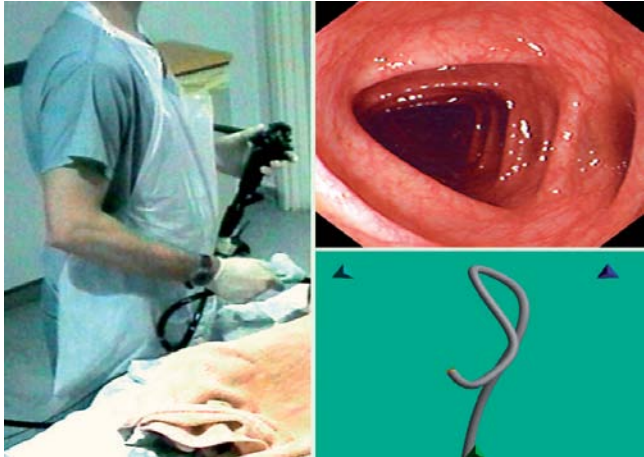
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**GRS**  
Global Rating Scale

**gin**  
gastrointestinal  
endoscopy for nurses

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e-Learning for Healthcare

# Intensive training over 5 days improves colonoscopy skills long-term



## Training and assessments within Accelerated Colonoscopy Training Week (ACTW)

### Timetable for ACTW

Day 1:  
Assessments & live case training  
Days 2 & 3:  
Simulator & and live case training  
Day 4:  
Live case training & assessments  
Day 5:  
Simulator training & assessment

### Pre-training Assessments

MCQ  
Simulator test cases  
DOPS: Live case assessment  
Tri-split video assessment

### Post-training Assessments

MCQ  
Simulator test cases  
DOPS: Live case assessment  
Tri-split video assessment

## Training and assessments at follow up

Practice at base hospital – 9 months (5 – 13)

### Follow-up (1 – 2 days)

Live case training & assessments

### Follow-up Assessments

MCQ  
Simulator test cases  
DOPS: Live case assessment  
Tri-split video assessment



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## Training for Endoscopists

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The JAG provides a robust quality and training framework for endoscopy professionals



### Certification

Information on training, assessment and JAG certification

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### Screening Colonoscopists

A support tool for accreditation

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# SAAS

Screening Assessment and Accreditation System



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### Introduction

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The NHS Bowel Cancer Screening Programme (NHS BCSP) is being implemented over a 3 year period and the aim is to recruit expert colonoscopists to carry out the 30,000 extra colonoscopies required to fulfil the programme. Given the known variability in colonoscopic skills, strict criteria for the accreditation of screening endoscopists have been developed to minimise the risks of complications and inaccurate and incomplete examinations.

There are several advantages of this accreditation process, both to the unit and the individual endoscopists involved. Accreditation is an essential part of the preparations for the implementation of screening locally. It also provides an opportunity to demonstrate high level colonoscopic skills, and to improve the local endoscopy service. In addition it will help those clinicians who wish to teach colonoscopy, locally or on courses.

To find out more about the accreditation process see the [Guidelines](#) section.





# Italian CRC Screening Program 2008

## Colonoscopy Retraining Working Group

G. Costamagna, MD

P. D' Argenio, MD

A. Federici, MD

E. Di Giulio, MD

G. Minoli, MD

L. Petruzzello, MD

M.E. Pirola, MD

C. Senore, MD

M. Zappa, MD



# Italian CRC Screening Program

## Colonoscopy “Retraining Program”

- Held by Italian Ministry of Health
- Managed by National Screening Observatory (ONS)
- Region-based
- 1-2 Trainers from each Region
- National “Train-the-Trainers” Course
- Regional “Retraining Courses”

# Screening Colonoscopy

## Colonoscopy Retraining Targets

- Colonoscopy Technique
- Safe Sedation
- Better diagnostic accuracy
- Immediate therapy (polypectomy-EMR)

# Italian CRC Screening Program Colonoscopy

## “Train the Trainers” Course

- In collaboration with the 3 Gastroenterological Societies (AIGO, SIED, SIGE) and with the Italian Group for CRC Screening (GISCoR)
- 2 Eds (Rome, EETC, Sept. 2007 – Campobasso, Oct. 2007)
- 23 Trainers
- 1 Master Colonoscopist (CB Williams)
- 10 Experts (epidemiology, quality, screening principles, sedation, etc.)

# Italian CRC Screening Program Colonoscopy

## “Train the Trainers” Course



Lectures



Simulator Training



Hands-on

# Italian CRC Screening Program

## Retraining Courses

- Hands-On One-to-Master  
(Lazio, 2005)

### **2007: National “Train the Trainers Course”**

- Observational  
(Lombardia, 2008)
- Hands-On Peer-to-Peer  
(Emilia Romagna, 2009)
- Hands-On One-to-Master  
(Veneto, 2010)
- Hands-On One-to-Master  
(Lazio, 2012)

# Assessment of Technical Skill

# CB Williams Comments

## DOPS Assessment form Certification of screening colonoscopists

Candidate  
  
 Assessor  
  
 Assessment Centre  
  
 Date (DD/MM/YYYY)  Case Number

Scale and Criteria Key  
 4 Highly skilled performance  
 3 Competent and safe throughout procedure, no uncorrected errors  
 2 Some standards not yet met, aspects to be improved, some errors uncorrected  
 1 Accepted standards not yet met, frequent errors uncorrected  
 n/a Not applicable  
 ■ Major Criteria    □ Minor Criteria

Headline Criteria	Full Criteria outlined in Grade Descriptors	Score	Comments
<b>Assessment, consent, communication</b>	<ul style="list-style-type: none"> <li>Obtains informed consent using a structured approach               <ul style="list-style-type: none"> <li>Satisfactory procedural information</li> <li>Risk and complications explained</li> <li>Co-morbidity</li> <li>Sedation</li> <li>Opportunity for questions</li> </ul> </li> <li>Demonstrates respect for patient's views and dignity during the procedure</li> <li>Communicates clearly with patient, including outcome of procedure with appropriate management and follow up plan.</li> </ul>		
<b>Safety and sedation</b>	<ul style="list-style-type: none"> <li>Safe and secure IV access</li> <li>Gives appropriate dose of analgesia and sedation and ensures adequate oxygenation and monitoring of patient</li> <li>Demonstrates good communication with the nursing staff, including dosages and vital signs</li> </ul>		
<b>Endoscopic skills during insertion and procedure</b>	<ul style="list-style-type: none"> <li>Checks endoscope function before intubation</li> <li>Performs PR</li> <li>Maintains luminal view / inserts in luminal direction</li> <li>Demonstrates awareness of patient's consciousness and pain during the procedure and takes appropriate action</li> <li>Uses torque steering and control knobs appropriately</li> <li>Uses distension, suction and lens washing appropriately</li> <li>Recognises and logically resolves loop formation</li> <li>Uses position change and abdominal pressure to aid luminal views</li> <li>Completes procedure in reasonable time</li> </ul>		
<b>Diagnostic and therapeutic ability</b>	<ul style="list-style-type: none"> <li>Adequate mucosal visualisation</li> <li>Recognises caecal landmarks or incomplete examination</li> <li>Accurate identification and management of pathology</li> <li>Uses diathermy and therapeutic techniques appropriately and safely</li> <li>Recognises and manages complications appropriately</li> </ul>		

Case Difficulty

Extremely easy	Fairly easy	Average	Fairly difficult	Very challenging
1	2	3	4	5

**A:** A skilled colonoscopist, successfully intubating a difficult and partially-fixed colon, although the medication given initially proved to be insufficient. The quality of the examination phase could be improved by using slower and precisely-directed steering movements (not 'rock & roll'!).

**B :** A skilled endoscopist with fairly vigorous technique. Consider:

- Use of position change to optimise endoscopic view when necessary (at Splenic Flexure)
- Instrument rotation to place fluid (or polyp) at the bottom of the view for efficient suction (or targeting)
- Care in avoiding unnecessary re-looping of the sigmoid colon in passing the Splenic Flexure

# Colonscopies in FIT+ - Lazio

Anni	Colon Eseguite	Colon Complete	Colon complete %
2006	154	127	82%
2007	75	62	83%
2008	629	547	87%
2009	1208	1061	88%
2010	1008	913	91%
2011	1860	1710	92%
2012	1651	1480	90%
Totale	6585	5900	90%

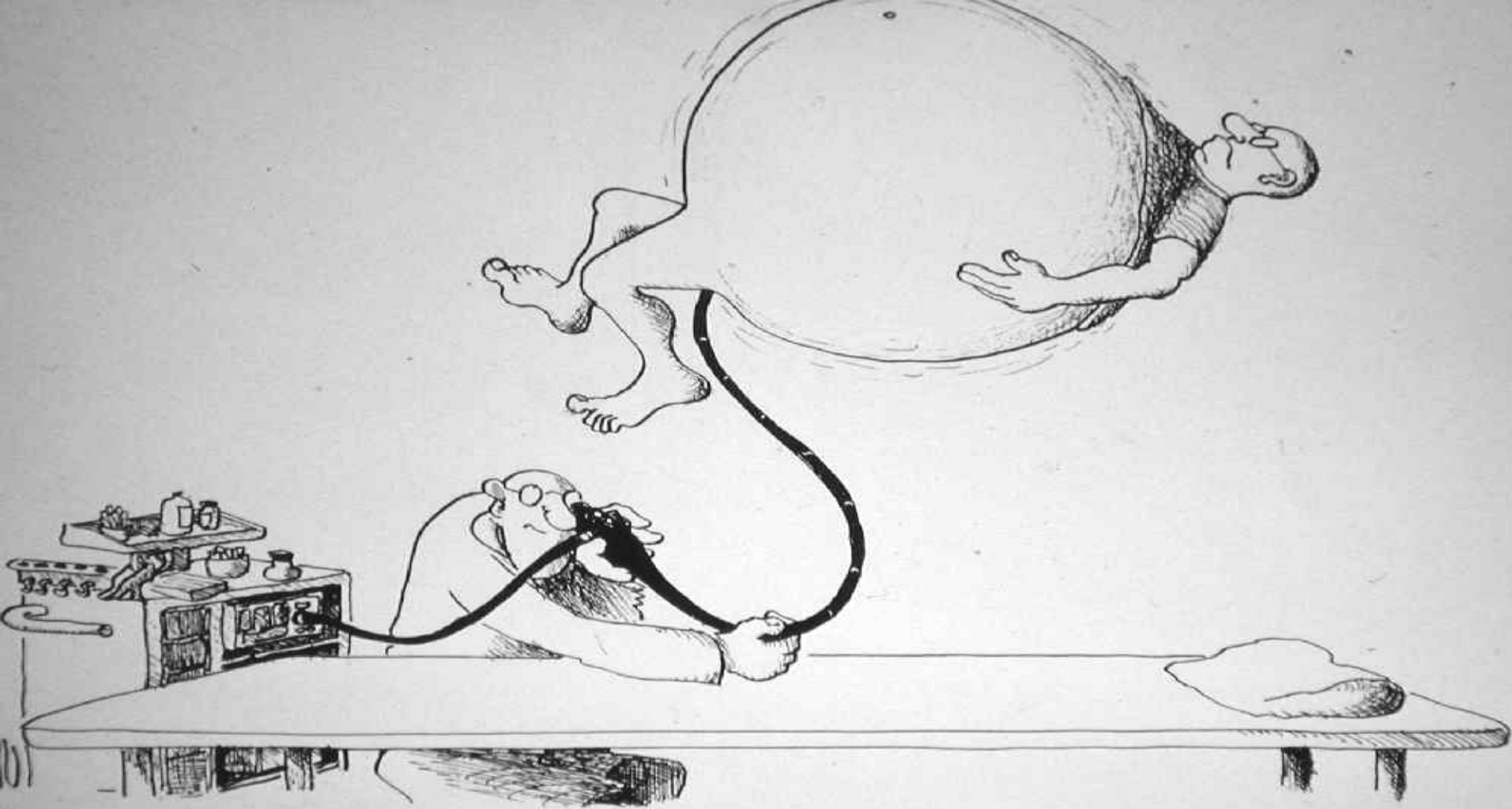


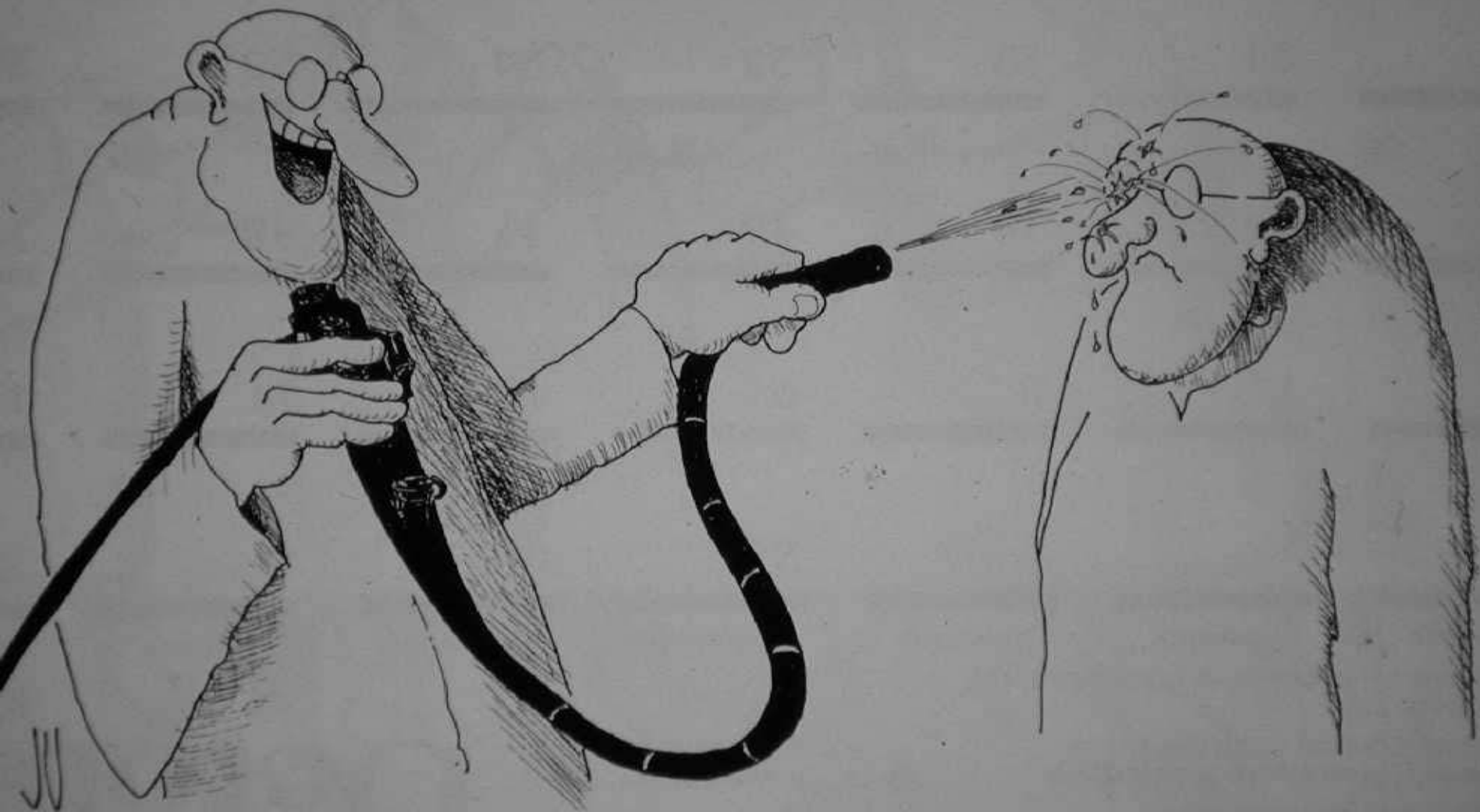
# Pediatric vs Standard Colonoscopes



CO<sub>2</sub>







# Water Jet Pump



# Polypectomy / EMR

- Adequate skill to remove polyps or NPL (flat lesions) up to 2 cm (ESD skills not required)
- Knowledge of Guidelines on Anticoagulation and Antiplatelet Therapy management
- Exhaustive knowledge of management of adenomas with invasive carcinoma (pathologic criteria)

# Lesions sent to surgery - Lazio

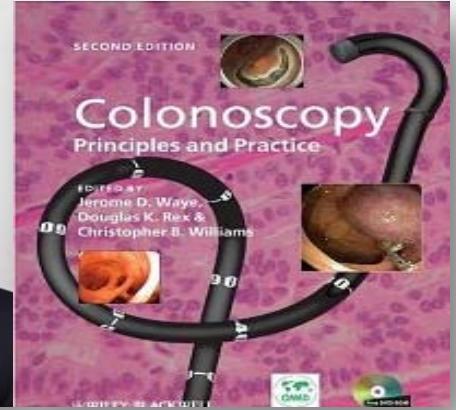
anni	Invio ad Intervento	Neoplasie	Adeno-Carcinoma	Adenoma Avanzato	Adenoma Iniziale	Benigni	Negativi	No Istologia
2005	9	0	8	1	0	0	0	0
2006	12	1	8	3	0	0	0	0
2007	4	0	3	1	0	0	0	0
2008	46	4	33	4	0	0	1	4
2009	88	4	69	5	3	1	2	4
2010	77	5	51	15	1	0	4	1
2011	153	17	107	23	1	1	3	1
2012	122	22	64	28	5	0	2	1
Totale	511	53	343	80	10	2	12	11

# “T” of lesions sent to surgery - Lazio

anni	N.D.	TX	T0	TIS	T1	T2	T3	T4
2005	7	0	2	0	0	0	0	0
2006	8	0	1	1	0	0	2	0
2007	4	0	0	0	0	0	0	0
2008	8	0	0	3	3	3	4	0
2009	5	0	3	7	2	11	10	0
2010	12	0	5	8	4	10	7	0
2011	19	0	11	15	6	15	35	9
2012	33	1	4	4	7	10	27	1
Totale	96	1	26	38	22	49	85	10

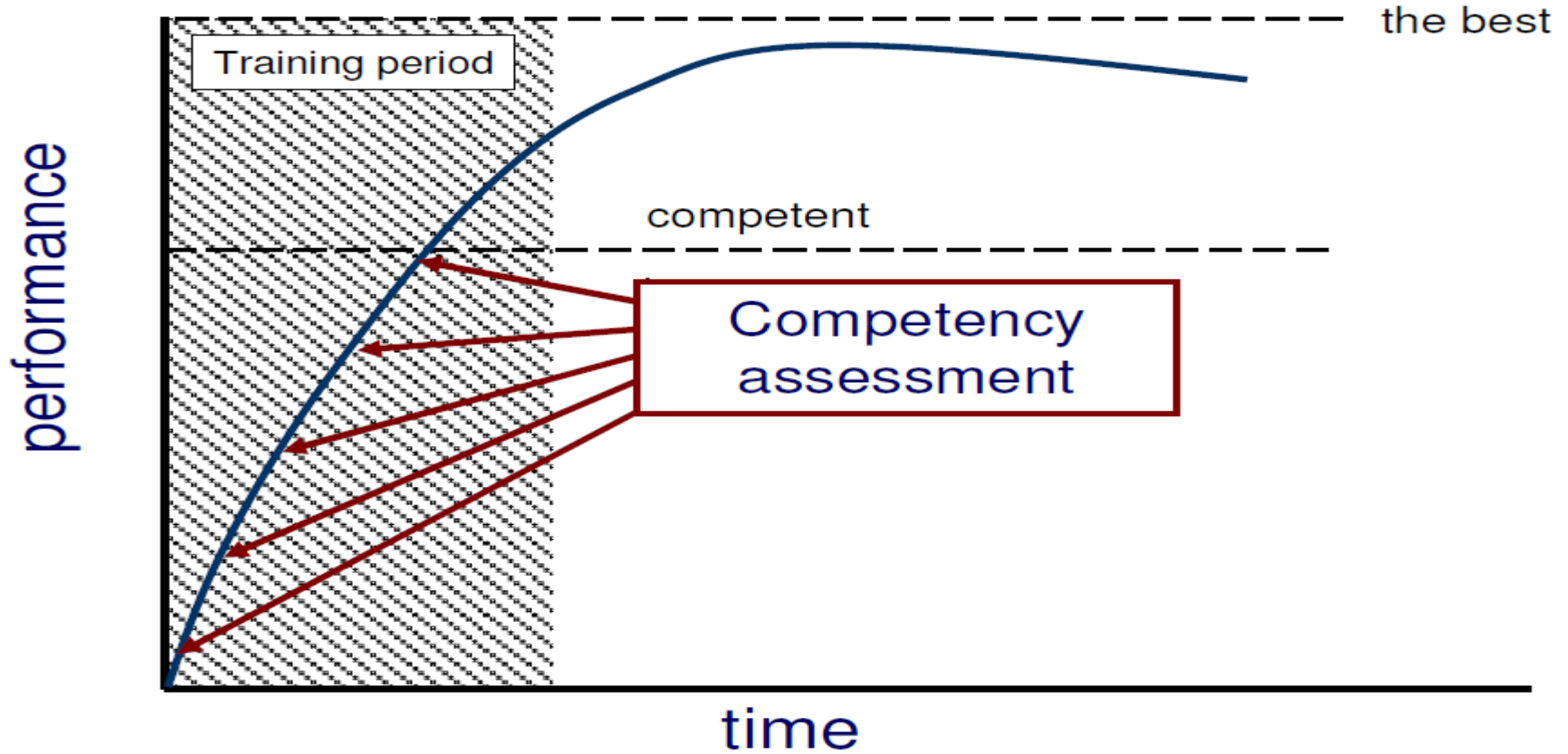


# Why Training for Endoscopic Resections ?

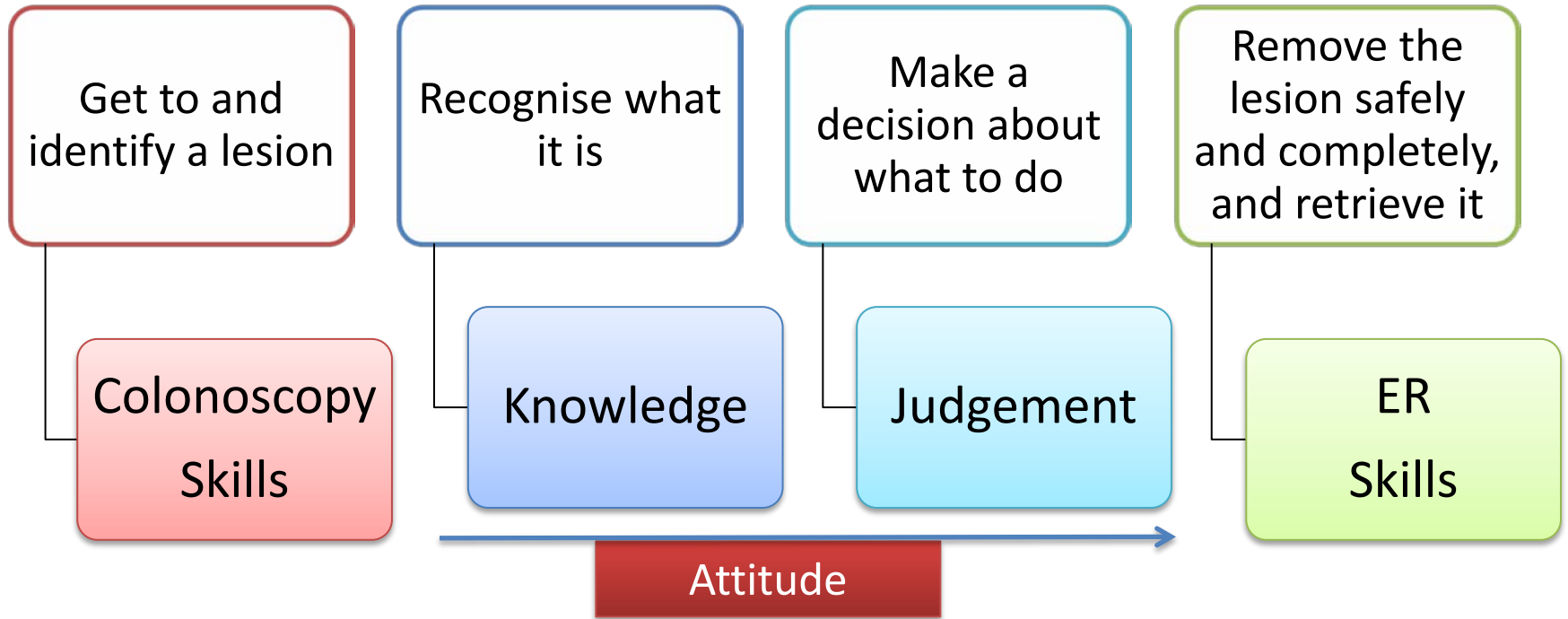


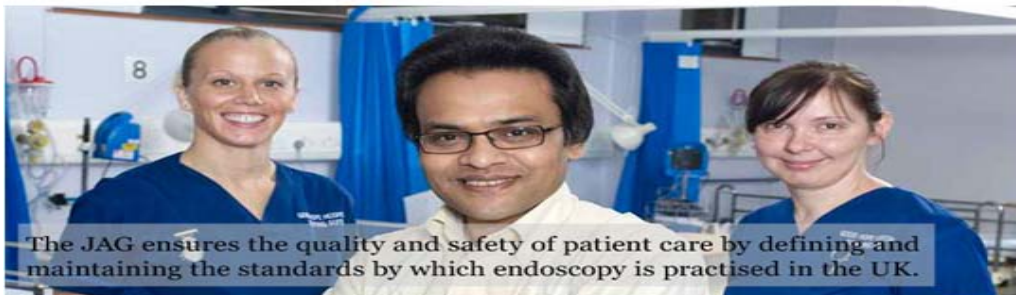
- Removing colonic polyps can be dangerous.
  - The risk of perforation approximately doubles with polypectomy and the risk of bleeding increases to between 1:100 - 1:30
- The larger the polyp, the greater the risks

# Endoscopic Resections Training



# Competency in Endoscopic Resections





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March 2011

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Basic Skills in Colonoscopy

Jun 11

08 Jun	Torbay	Fully Booked
08 Jun	Wolverhampton	Fully Booked
14 Jun	Liverpool	Fully Booked
21 Jun	Sheffield	Only 1 place left
27 Jun	Yorkshire	Fully Booked

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# ER: Key performance indicators

- Appropriate removal technique
- Completeness of excision
- Recovery rate
- Proper use of the tattoo
- Complications
- Appropriate surveillance intervals
- *Cancer rates in patients under surveillance*
- Correct selection of procedures/techniques
- Non-technical skills

# Direct Observation of Polypectomy Skills

## Validation of a novel method for assessing competency in polypectomy

Sachin Gupta, MBBS, MRCP,<sup>1</sup> Paul Bassett, MSc,<sup>2</sup> Ripple Man, BSc,<sup>1</sup> Noriko Suzuki, PhD,<sup>1</sup> Margaret E. Vance, MSc,<sup>1</sup> Siwan Thomas-Gibson, MD<sup>1</sup>

London, Amersham, United Kingdom

- ▶ 59 videos scored
- ▶ Majority of the assessors agreed for the global assessment scale in 98% of polyps
- ▶ Analysis suggested that DOPyS is a reliable assessment tool, provided that it is used:
  - by 2 assessors
  - to score 5 polypectomy videos all performed by 1 endoscopist.
- ▶ DOPyS scores reflect the endoscopist's competence

# Direct Observation of Polypectomy Skills (DOPyS)

## DOPyS domains

**Generic skills**

**Stalked polyps**

**Sessile polyps/EMR**

**Post-polypectomy**

## Direct Observation of Polypectomy Skills (DOPyS)

Colonoscopist: ..... Case ID:..... Date ...../...../..... Assessor:.....

	Polyp site: C / AC / HF / TC / SF / DC / SC / R
--	---

**Scale:**

4	- Highly skilled performance
3	- Competent & safe throughout procedure, no uncorrected errors
2	- Some standards not yet met, aspects to be improved, some errors uncorrected
1	- Accepted standards not yet met, frequent errors uncorrected
N/A	- Not applicable/Not assessable

**The underlined parameters can only be assessed during 'live' polypectomy**

Generic	Score	Comments
<b>Optimising view of / access to the polyp:</b> 1. Optimises polyp position 2. Optimises view by aspiration/insufflation/wash 3. Optimises visualization of full extent of polyp 4. Determines full extent of lesion (+/- use of adjunctive techniques e.g. bubble breaker, NBI, dye spray etc) if appropriate 5. <u>Adjusts/stabilizes scope position</u> 6. <u>Uses appropriate polypectomy technique (e.g. taking into account site in colon)</u> 7. <u>Checks all polypectomy equipment (forceps, snare, clips, loops) available</u> 8. <u>Checks (or asks assistant to) snare closure prior to introduction into the scope</u> 9. <u>Clear instructions to, and utilisation of, endoscopy staff</u> 10. <u>Checks diathermy settings are appropriate</u> 11. <u>Photo-documents pre and post polypectomy</u>		
<b>Stalked polyps: Generic, then</b> 12. Pre-injects stalk/applies endo-loop/clips prophylactically if appropriate 13. Selects appropriate snare size 14. Directs snare accurately over polyp head 15. Correctly selects en-bloc or piecemeal removal depending on size 16. Advances snare sheath towards stalk as snare closed 17. Places snare at appropriate position on the stalk 18. Mobilises polyp to ensure appropriate amount of tissue is trapped within snare 19. Applies appropriate degree of diathermy		
<b>Small sessile lesions / Endoscopic mucosal resection: Generic, then</b> 20. Adequate submucosal injection using appropriate injection technique, maintaining views 21. Only proceeds if the lesion lifts adequately 22. Directs snare accurately over the lesion head 23. Correctly selects en-bloc or piecemeal removal depending on size 24. Appropriate positioning of snare over lesion as snare closed 25. Ensures appropriate amount of tissue is trapped within snare 26. Tents lesion gently away from the mucosa 27. Uses cold snare technique or applies appropriate diathermy, as applicable 28. Ensures adequate haemostasis prior to further resection		
<b>Post polypectomy</b> 29. Examines remnant stalk/polyp base 30. Identifies and appropriately treats residual polyp 31. Identifies bleeding and performs adequate endoscopic hemostasis if appropriate 32. Retrieves, or attempts retrieval of polyp 33. <u>Checks for retrieval of polyp</u> 34. Places tattoo if appropriate		

<b>Overall Competency at polypectomy:</b>	4	3	2	1
<b>Polyp Level</b>	4	3	2	1
Was it appropriate to remove this polyp at index colonoscopy (i.e. on standard BCS consent)	YES	NO	<b>Polyp size</b>	.....mm



# Future perspectives - Principles

- Create a culture in which individuals are willing to improve their skills
- Provide opportunities for better training
- Recognize and reward those who perform well

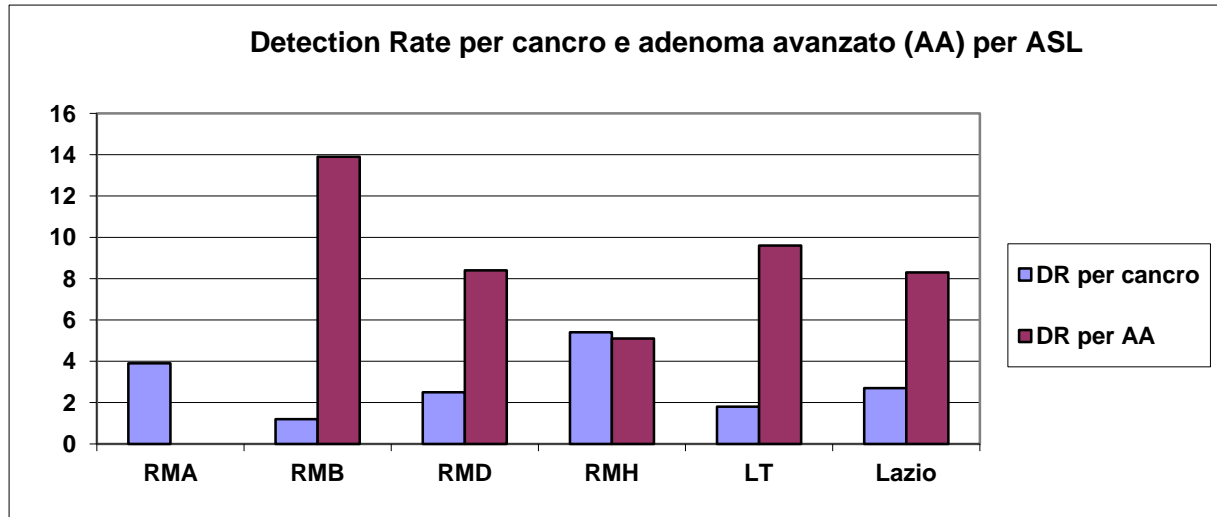
# Future Perspectives - Actions

- Not all endoscopists should be involved in a Screening Program
- A voluntary-based selection should be made by self-certification
- The selected trainees should attend a Retraining Course, followed by annual assessment of skills and performances
- Specific Retraining will then be appropriate for those not complying

A serene sunset scene over a calm body of water. The sun is a bright, glowing orb on the horizon, casting a shimmering reflection down the center of the water. The sky transitions from a deep orange near the horizon to a lighter, pale yellow at the top. In the foreground, the dark, silhouetted branches of a tree are visible on the right side, and a rocky shoreline is at the bottom. The overall mood is peaceful and contemplative.

**Thank You  
for your Kind Attention**

# VPP del FIT alla colonscopia: Detection Rate per Cancro e per Adenoma Avanzato



Livello desiderabile DR cancro: >2,5‰

Livello accettabile DR cancro: >2‰

Livello desiderabile DR AA: >10‰

Livello accettabile DR AA: >7,5‰