

**TUMORI DEL RETTO IN AMBITO DI
SCREENING:
UNA CRITICITA' ?
EFFICACIA, LIMITI E TIMING DELLA
CHIRURGIA**

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PROGRAMMA DI SCREENING CA DEL COLON RETTO

PROCEDURE OPERATIVE DI I, II e III LIVELLO

regione campania
 asnapoli3sud

Responsabile: R. Palombino



Istituto Nazionale Tumori
Fondazione G. Pascale

Responsabile: F. Bianco

I LIVELLO
SOF+
O
*RISCHIO
AUMENTATO*

II LIVELLO

COLON
VIRTUALE,
CLISMA OPACO

ANATOMIA
PATOLOGICA

III LIVELLO

- APPROFONDIMENTI
DIAGNOSTICI
- CHEMIOTERAPIA
RADIOTERAPIA
- INTERVENTO
CHIRURGICO/ENDOSCOPICO

POPULATION BASED STUDIES



- ✓ *Screening*
- ✓ *Oncologic pathway*
- ✓ *Quality assurance*



- ✓ *Quality assurance*
- ✓ *Oncologic pathway*
- ✓ *Screening*

NORVEGIAN RECTAL CANCER GROUP

British Journal of Surgery 2005; 92: 217–224

Effect of hospital caseload on long-term outcome after standardization of rectal cancer surgery at a national level

A. Wibe¹, M. T. Eriksen², A. Syse³, S. Tretli³, H. E. Myrvold¹ and O. Søreide⁴ on behalf of the Norwegian Rectal Cancer Group

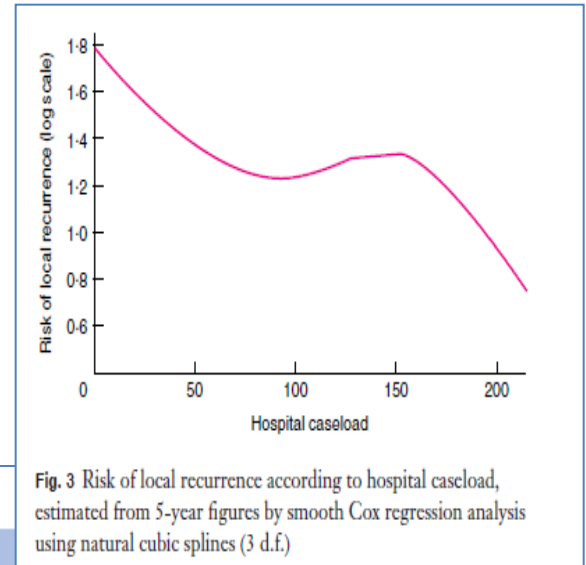


Table 2 Postoperative mortality within 30 days and anastomotic leakage related to hospital caseload

	Annual caseload				Total	P*
	≥ 30	20–29	10–19	< 10		
No. of patients	774	854	1352	408	3388	
Postoperative deaths	19 (2.5)	30 (3.5)	41 (3.0)	16 (3.9)	106 (3.1)	0.482
No. of anterior resections	516	547	840	261	2164	
Anastomotic leakage	43 (8.3)	85 (15.5)	90 (10.7)	19 (7.3)	237 (11.0)	< 0.001

* χ^2 test.



CRITERI DI QUALITA'

Organizzativi

- Lista di attesa trasparente ✓
- Rapporti funzionali con servizi di endoscopia ✓
- Percorso diagnostico terapeutico integrato ✓

Indicatori dell' intervento

- n.ro di linfonodi prelevati (>12) ✓
- % di reintervento entro 30 giorni ✓
- n.ro di recidive in base allo stadio ✓

Per il retto extraperitoneale

- % dei Pz sottoposti a terapia neoadiuvante ✓
- % di addomino perineali ✓
- numero di pazienti con infiltrazione del margine radiale del meso retto ✓
- numero di linfonodi prelevati (>12) ✓
- numero di recidive in base allo stadio ✓

Rectal cancer



Multidisciplinary approach



Dynamic evaluation



New predictors of response and prognosis



TC, MRI, EUS, PET-TC



New drugs



Dedicated surgery

(minimal and mini-invasive)

Tailored Therapy



Right Treatment for Right Patients

Surgery



cT1-2, CRM- ,
early cT3N0,
middle/upper

Short-RT



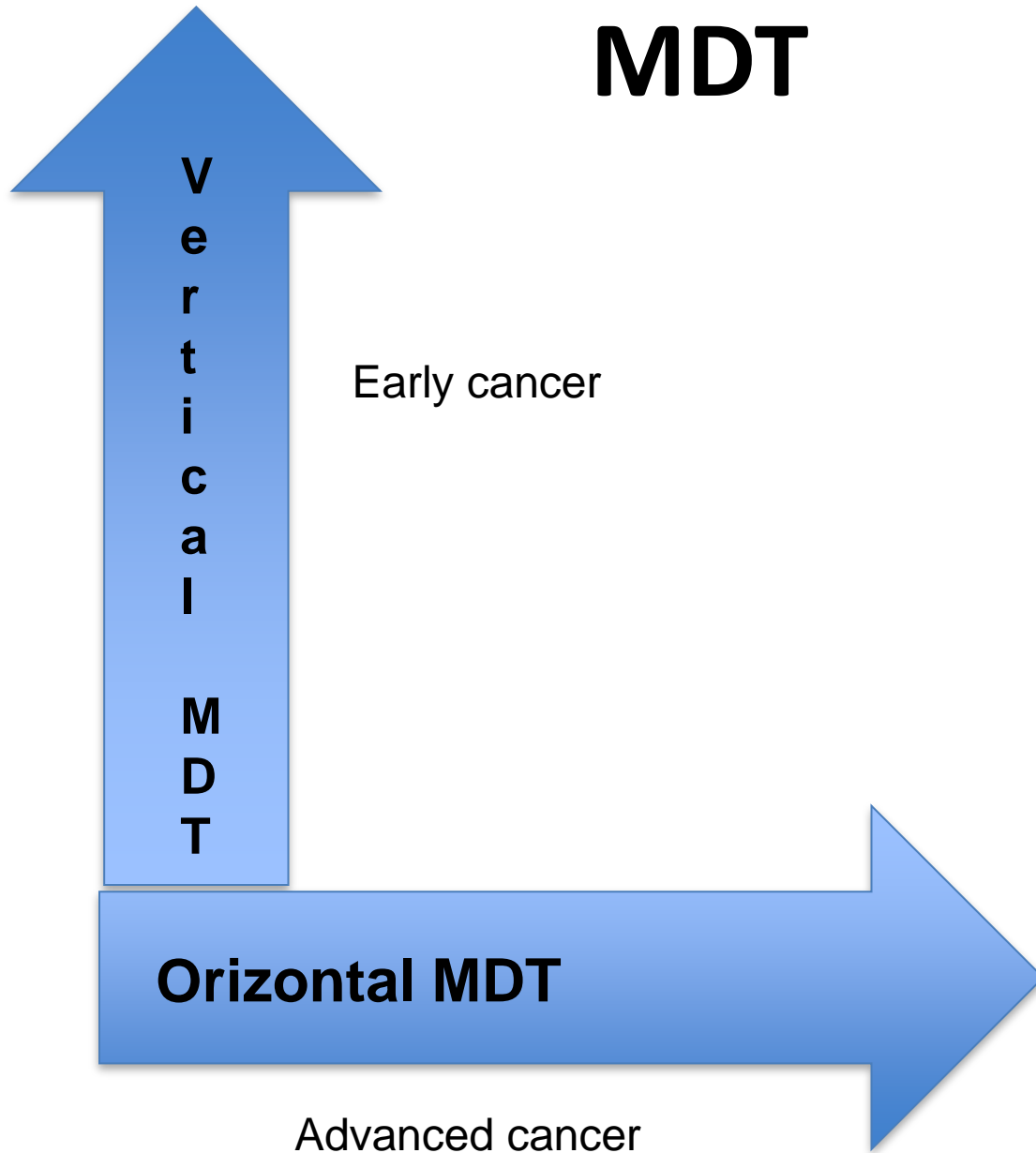
CRM- with cT3
N+, or cT3N0
lower

CRT



cT3 N2, CRM+
cT4
M1 resectable

MDT



V
e
r
t
i
c
a
l

M
D
T

Early cancer

Horizontal MDT

Advanced cancer

Classi di pazienti per problematiche emergenti



1

Se il paziente ha diagnosi borderline per trattamento endoscopico o chirurgico ?

- “Second opinion” anatomopatologica
- Valutazione multidisciplinare endoscopica/chirurgica (sincroni)
- Invio a centri dedicati



Management of the malignant colorectal polyp: ACPGBI position statement¹

J. G. Williams*, R. D. Pullan†, J. Hill‡, P. G. Horgan§, E. Salmo¶, G. N. Buchanan**, S. Rasheed††, S. G. McGee‡‡ and N. Haboubi§§

ASSESSING THE RISK OF RESIDUAL DISEASE POST POLIPECTOMY

- Polyp morphology
- Margin of resection (LEVEL IIB –grade B)
- Depth of invasion (LEVEL IIA –grade B)
- Lymphovascular invasion (LEVEL IIB –grade C)
- Cancer differentiation (LEVEL IIB –grade B)
 - COMBINATION OF FACTORS
(low risk/intermediate risk/high risk)

MANAGEMENT of RECTAL POLYPS: PREDICTION OF RESIDUAL DISEASE

Resection margin

Risk of adverse outcome

<1 mm

21-33% risk

>1 mm

2% risk

>2 mm

Low risk



CONSENSUS CONFERENCE on EARLY RECTAL CANCER

EAES Paris 2014

Approach for local excision

Comparison between ESD and TEM

No randomized study

Systematic review and meta-analysis: 11 ESD and 10 TEM series

	ESD	TEM	
En-bloc resection	87.8%	98.7%	
R0 resection	74.6%	88.5%	p <0.01
Morbidity	8%	8.5%	p =0.004
Recurrence	2.6%	5.2%	p <0.001

Systematic review and meta-analysis of histopathological factors influencing the risk of lymph node metastasis in early colorectal cancer

C. Beaton*, C. P. Twine*, G. L. Williams* and A. G. Radcliffe†

*Department of Colorectal Surgery, Royal Gwent Hospital, Newport, UK and †Screening Division, Public Health Wales, Cardiff, UK

AIM: Lymph node (LN) metastases are present in up to 17% of early colorectal cancers (pT1). Identification of associated histopathological factors would enable counselling of patients regarding this risk.



23 cohort studies including 4510 pts

CONCLUSIONS: Meta-analysis of the current literature demonstrates that in early colorectal cancer a **depth of submucosal invasion** by the primary tumour of > 1 mm, **lymphovascular invasion**, **poor differentiation** and **tumour budding** are significantly associated with LN metastasis.

Management of the malignant colorectal polyp: ACPGBI position statement¹

J. G. Williams*, R. D. Pullan†, J. Hill‡, P. G. Horgan§, E. Salmo¶, G. N. Buchanan**,
S. Rasheed††, S. G. McGee‡‡ and N. Haboubi§§

The decision to undergo surgery for the malignant polyp or a follow-up strategy ***is currently unclear*** and is often left to an ***informed “patient choiche”*** after review of the benefits and risk of each approach.

It should be remembered that even where the risk of residual disease is assessed as being “high”, it is more likely that resected specimen will ***not contain any evidence of residual disease*** at the polypectomy site or in draining lymphnodes.

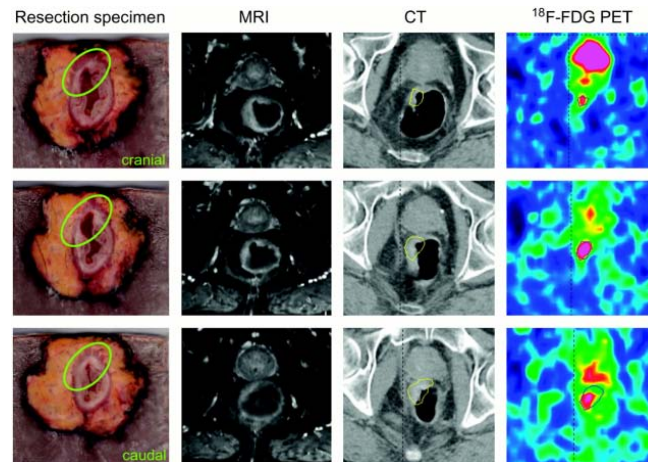
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Pz borderline per trattamento chirurgico radicale laparotomico o per trattamento chirurgico per via transanale con stretto follow-up ?

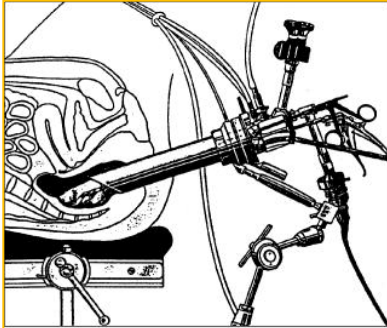


E' necessario un accurato studio preoperatorio e follow-up in centri dove siano presenti esperti del settore di

- Anatomia patologica colo-rettale
- RM pelvi
- Ecografia endorettale
- PET TC



TEM vs TME



Figur 1. Transanal endoskopisk mikrokirurgi (TEM)-apparatet monteret og klar til operation.

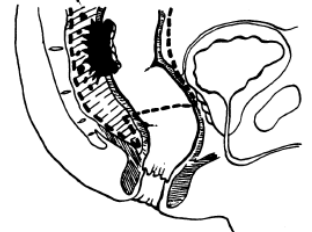


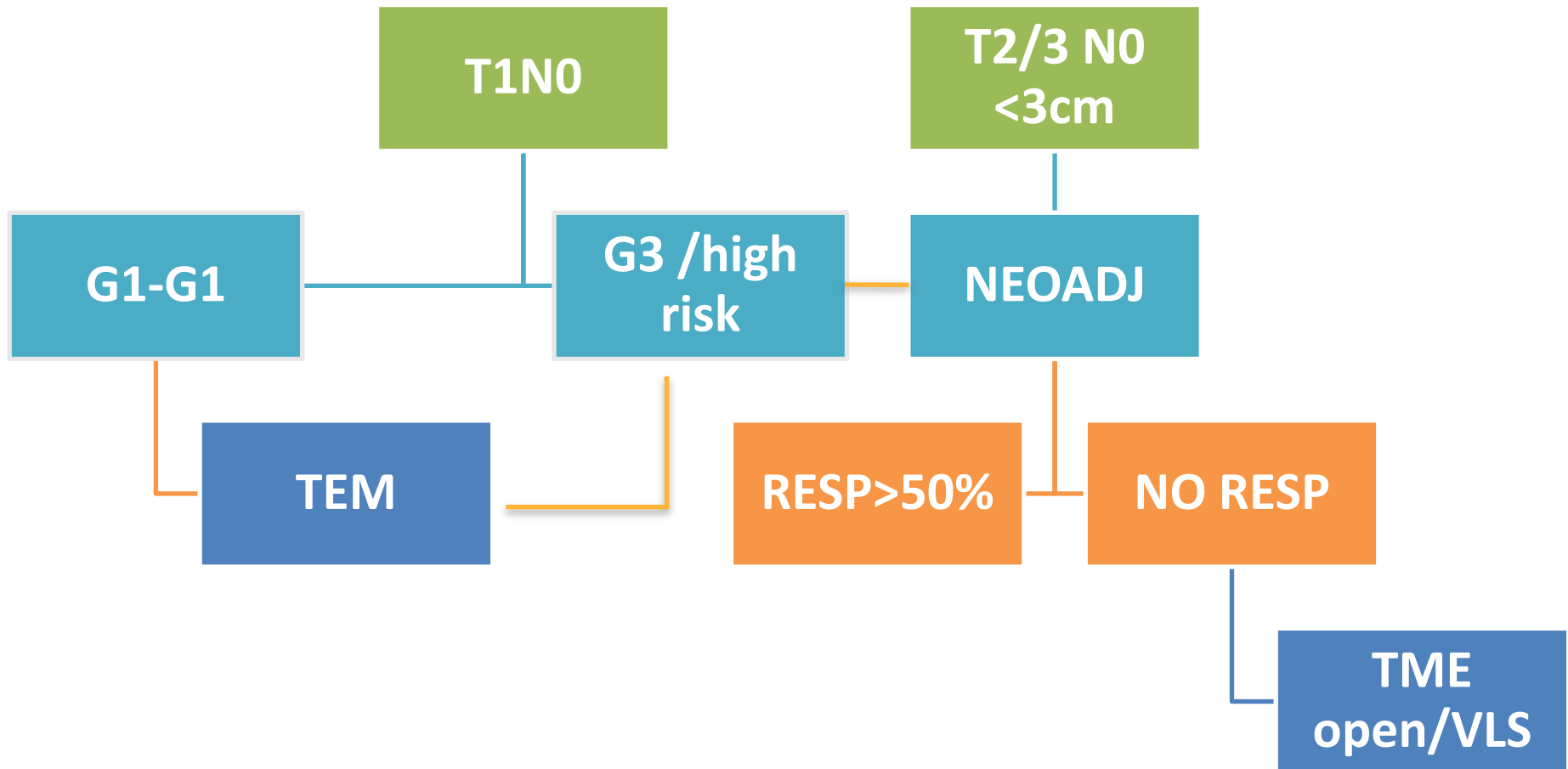
Figure 1. Diagrammatic representation of the Holy Plane, as published in the British Journal of Surgery in 1982



**Lower morbidity?
Better function?**

Worse oncological outcome?

EARLY LOW RECTAL CANCER



Treatment of rectal cancer by transanal endoscopic microsurgery: Experience with 425 patients

Mario Guerrieri, Rosaria Gesuita, Roberto Ghiselli, Giovanni Lezoche, Andrea Budassi, Maddalena Baldarelli

A total of 425 pts with rectal cancer

120 T1 → TEM

185 T2 N0 }
120 T3 N0 } Hight- dose RT
and TEM

Cancer-specific survival rates at the end of follow-up were
100% for pT1 pts
93% for pT2 pts
89% for pT3 pts.

CONCLUSION: TEM is a safe and effective procedure to treat rectal cancer in selected patients without evidence of nodal involvement. T2-T3 lesions require pre-operative neoadjuvant therapy.

PREOP RT and LOCAL EXCISION

(simple series studies)

EAES Paris 2014

LOCAL RECURRENCE

ypT0 0%
ypT1 0.6%
ypT2 6- 20%
ypT3 up to 42%

Acceptable + about 50% (more?) chance
for cure after salvage surgery

***Were results of ypT0-1 patients confirmed by
prospective trials?***

LOCAL EXCISION AFTER NEOADJUVANT

Ann Surg Oncol (2011) 18:3686–3693
DOI 10.1245/s10434-011-1822-0

Annals of
SURGICAL ONCOLOGY
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY

ORIGINAL ARTICLE – COLORECTAL CANCER

Long-Term Outcome of Patients with Complete Pathologic Response after Neoadjuvant Chemoradiation for cT3 Rectal Cancer: Implications for Local Excision Surgical Strategies

Claudio Belluco, MD, PhD¹, Antonino De Paoli, MD², Vincenzo Canzonieri, MD³, Roberto Sigon, MD¹, Mara Fornasarig, MD⁴, Angela Buonadonna, MD⁵, Giovanni Boz, MD², Roberto Innocente, MD², Tiziana Perin, MD³, Marta Cossaro, MD¹, Jerry Polesel, ScD⁶, and Francesco De Marchi, MD¹

¹Department of Surgical Oncology, CRO—IRCCS, National Cancer Institute, Aviano, Italy; ²Department of Radiotherapy, CRO—IRCCS, National Cancer Institute, Aviano, Italy; ³Department of Pathology, CRO—IRCCS, National Cancer Institute, Aviano, Italy; ⁴Department of Gastroenterology, CRO—IRCCS, National Cancer Institute, Aviano, Italy; ⁵Department of Medical Oncology, CRO—IRCCS, National Cancer Institute, Aviano, Italy; ⁶Department of Epidemiology, CRO—IRCCS, National Cancer Institute, Aviano, Italy

CONCLUSIONS:

With retrospective analysis limitations, our data confirm favorable long-term outcome of cT3 rectal cancer with ypCR after CRT and warrant clinical trials exploring local excision surgical strategies.

**Department of Surgical Oncology
CRO-IRCCS National Cancer Institute, Aviano, Italy**

MRI IMAGING

PREDICTIVITY OF NEOADJUVANT THERAPY RESPONSE

Value of Time Intensity Curve Visual Inspection in Dynamic Contrast Enhanced-MRI
for the evaluation of neoadjuvant therapy response in locally advanced rectal cancer

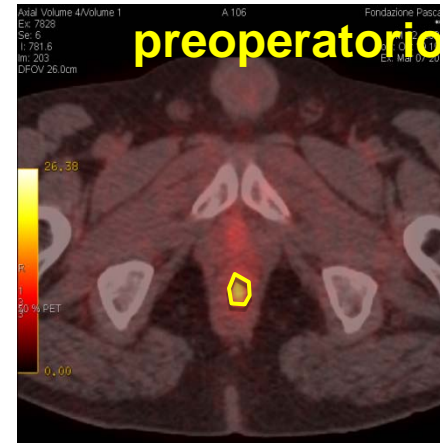
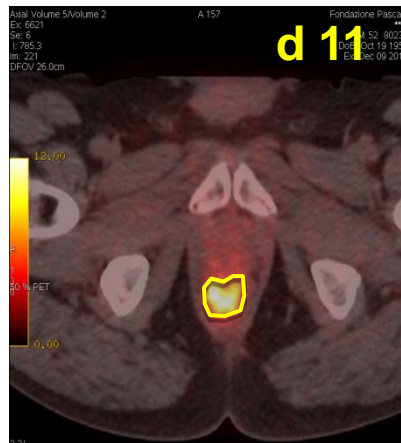
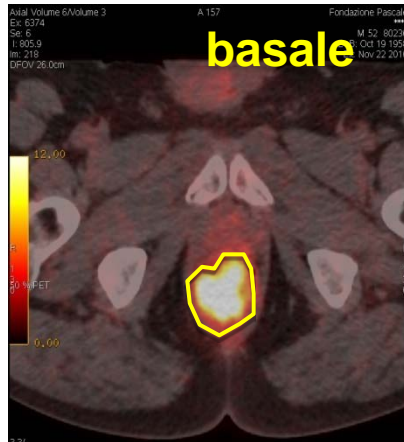
Antonella Petrillo¹, Roberta Fusco¹, Mario Petrillo¹, Vincenza Granata¹, Salvatore Filice¹, Paolo Delrio², Fabiana Tatangelo³, Biagio Pecori⁴, Gerardo Botti³, Paolo Muto⁴, Giovanni Romano⁵, Antonio Avallone⁵

*The Journal of Physiology
and Health 2014
(in press)*

Patients group with complete pathologic response (pT0)

Type of Evaluation Performed	Sensitivity %	Specificity %	PPV %	NPV %	ACC %
mMRI analysis	72	68	66	74	70
qMRI analysis	94	76	77	94	84

FDG-PET/CT as an early sensitive predictor of treatment response



SUV _(bw) mean	10,1	5,9	3,7	TRG 1
TLG	390,5	110,4	19,6	

SUV_(bw) mean

Indice di captazione

= (attività lesione/ volume lesione)/ (attività iniettata/volume paziente)

TLG

Total lesion glycolysis

= SUV_{bw} x volume

Eur J Nucl Med Mol Imaging (2012) 39:1848–1857
DOI 10.1007/s00259-012-2229-2

ORIGINAL ARTICLE

Early FDG PET response assessment of preoperative radiochemotherapy in locally advanced rectal cancer: correlation with long-term outcome

Antonio Avallone · Luigi Aloj · Corradina Caracò ·
Paolo Delrio · Biagio Pecori · Fabiana Tatangelo ·
Nigel Scott · Rossana Casaretti · Francesca Di Gennaro ·
Massimo Montano · Lucrezia Silvestro ·
Alfredo Budillon · Secondo Lastoria



WATCH AND WAIT IN RECTAL CANCER

Int J Radiat Oncol Biol Phys. 2014 Mar 15;88(4):822-8.

Local recurrence after complete clinical response and watch and wait in rectal cancer after neoadjuvant chemoradiation: impact of salvage therapy on local disease control.

Habr-Gama A, Gama-Rodrigues J, São Julião GP, Proscuschim I, Sabbagh C, Lynn PB, Perez RO.

CONCLUSIONS:

Local recurrence may develop in 31% of patients with initial cCR when early regrowths (≤ 12 months) and late recurrences are grouped together. More than half of these recurrences develop within 12 months of follow-up.

Salvage therapy is possible in $\geq 90\%$ of recurrences, leading to 94% local disease control, with 78% organ preservation.

AT THE END OF THE DAY:

THE MORE YOU WAIT THE BETTER

NO HARM TO THE PATIENT IN CASE OF RECURRENCE
(SALVAGE SURGERY)

Outcome post TEM (local recurrence) SALVAGE SURGERY



The outcome after transanal excision for rectal cancer depends on **close surveillance for early detection of recurrence**. In patients able to undergo surgery, endoluminal or pelvic recurrence should be treated with an immediate radical salvage operation. Overall long-term survival after local excision with **transanal endoscopic microsurgery followed by radical salvage surgery in cases of local recurrence is comparable to overall survival after initial radical surgery.**

Stipa F, Giaccaglia V, Burza A.

Dis Colon Rectum. 2012 Mar;55(3):262-9.

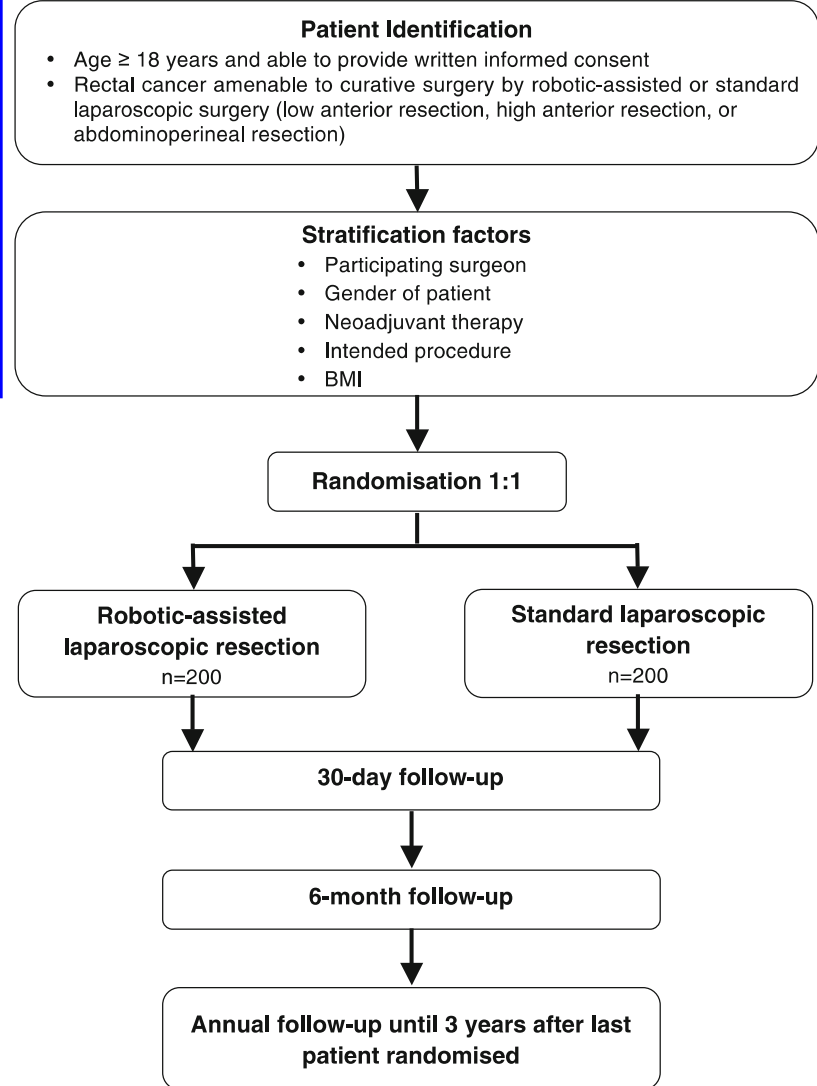
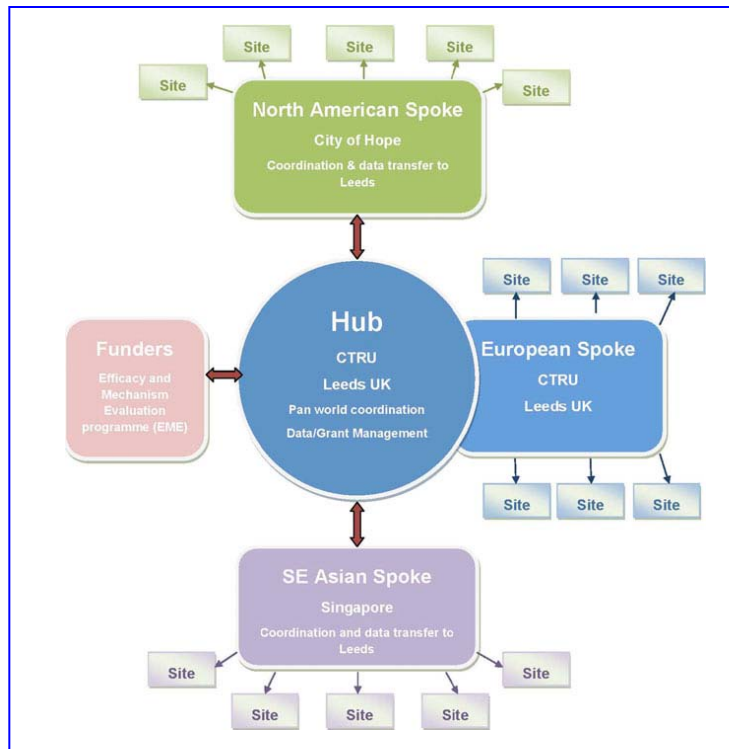
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Pz eleggibili per chirurgia laparoscopica e/o robotica?



An international, multicentre, prospective, randomised, controlled, unblinded, parallel-group trial of robotic-assisted versus standard laparoscopic surgery for the curative treatment of rectal cancer

Fiona J. Collinson · David G. Jayne · Alessio Pigazzi · Charles Tsang · Jennifer M. Barrie · Richard Edlin · Christopher Garbett · Pierre Guillou · Ivana Holloway · Helen Howard · Helen Marshall · Christopher McCabe · Sue Pavitt · Phil Quirke · Carly S. Rivers · Julia M. B. Brown

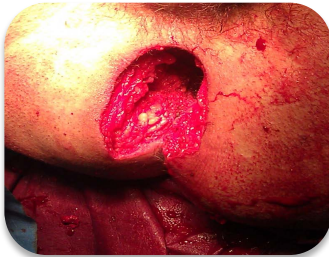


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Nei pz con neoplasia del retto ultrabasso?

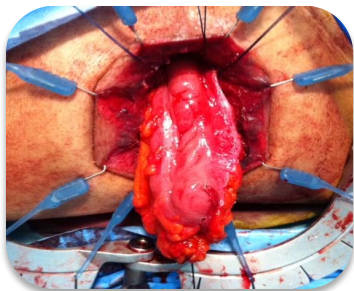
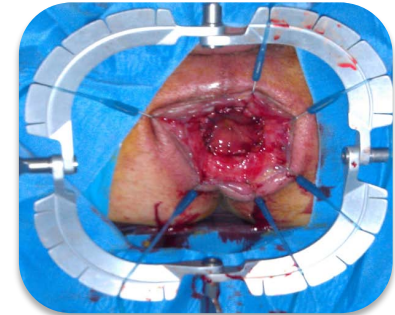


Opzioni terapeutiche:



Amputazione addominoperineale secondo Miles con colostomia permanente

Anastomosi coloanale manuale o meccanica con ileostomia temporanea



Anastomosi coloanale con pull-through

CONSENSUS CONFERENCE on EARLY RECTAL CANCER

EAES Paris 2014

Indication for APR resection in rectal cancer:

NONE +++

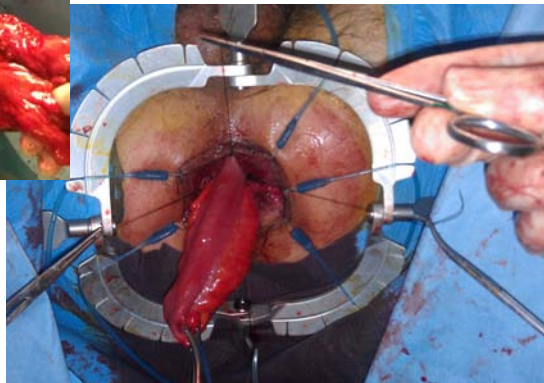
Choiche between:

- Partial or subtotal resection of internal anal sphyncter
- Low/ultralow anterior resection

EAES Paris 2014

PULL THROUGH PROCEDURE ?

Anastomosi coloanale con pull-through



6

**Pz con neoplasia del retto ultrabassa
estesa alla linea dentata e/o già
infiltrante il piano muscolare degli
elevatori dell' ano**



**Standard
APR**



**MULTICENTER RANDOMIZED
CONTROLLED TRIAL,
EXTRALEVATOR VS. STANDARD
ABDOMINOPERINEAL RESECTION
FOR RECTAL ADENOCARCINOMA**

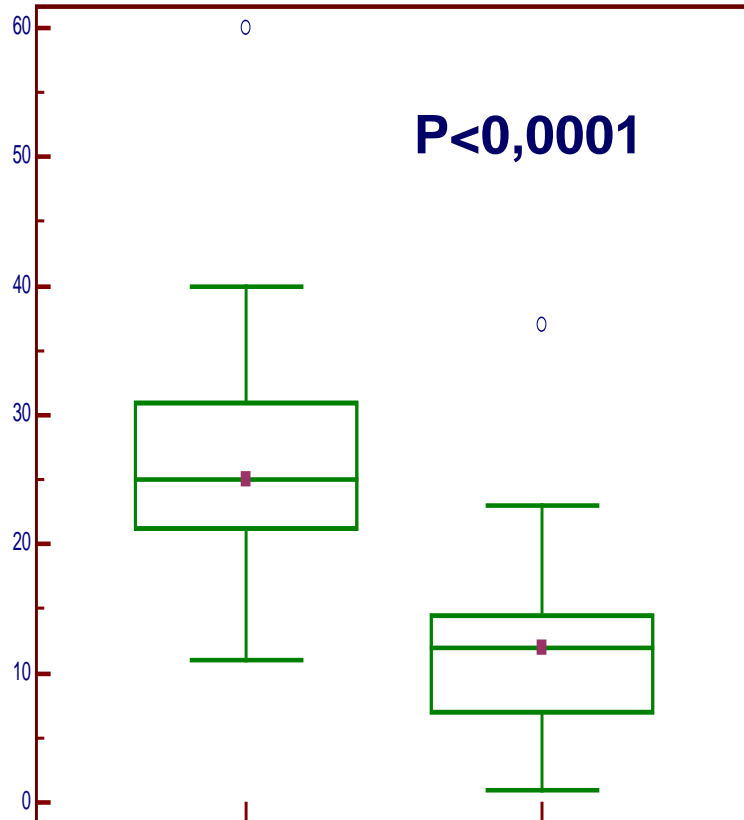


**Cylindrical
APR**

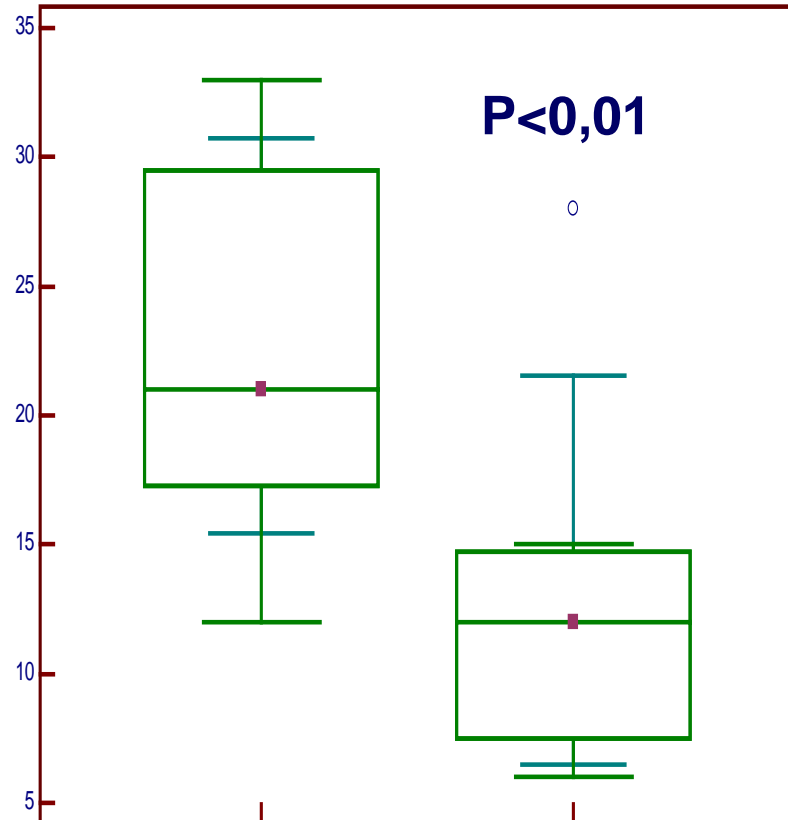
LYMPH NODES HARVESTING

	SCREENING IN	SCREENING OUT	NO SCREENING (REFERRAL CENTER)
COLON	30.2	10.7	27.7
RECTUM	18.2	11	24.4
> 12 LYMPH NODES	Colon 98,6% Rectum 100%	Colon 51,7% Rectum 44%	Colon 100% Rectum 100%

An higher number of removed lymph-nodes was found both in patients with colon and rectal cancer operated on in the referral center compared to district hospital

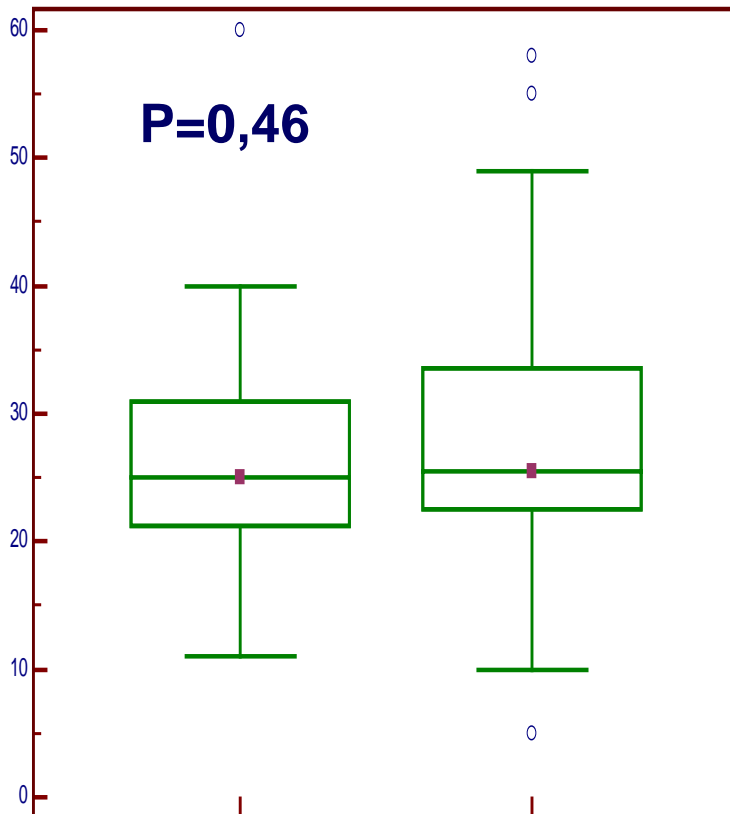


Screened colon RC vs Screened colon DH

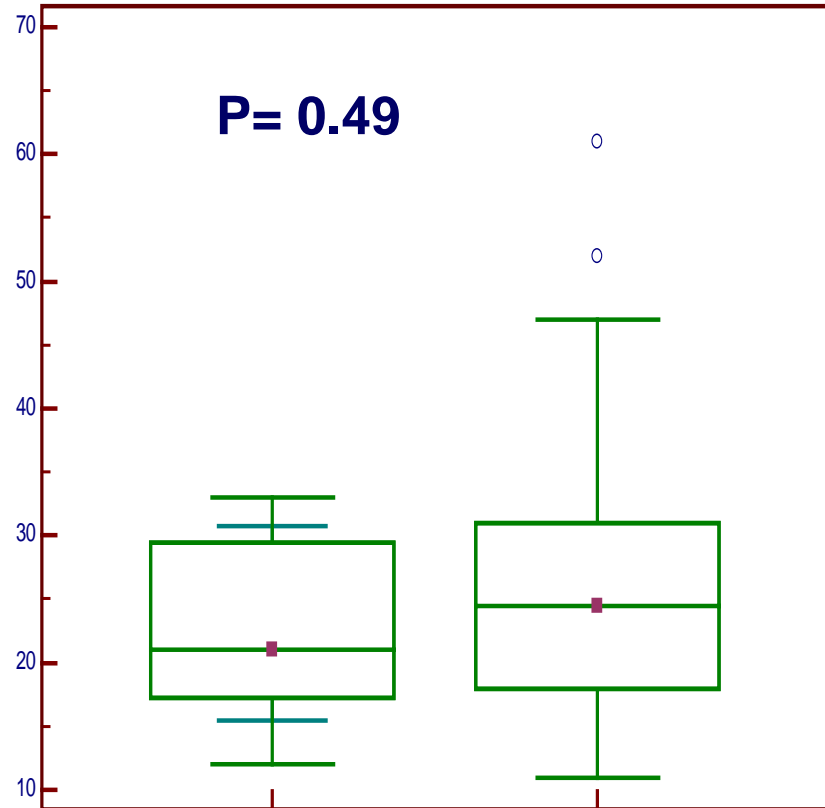


Screened rectum RC vs Screened rectum DH

In the same period 196 symptomatic CRC patients were treated in our RC, and these data were used as a control group, to identify the quality of the surgical outcome in our center.



**Screened colon RC vs
Unscreened colon**



**Screened rectum RC vs
Unscreened rectum**

Cochrane Database Syst Rev. 2012

- Overall five year survival was significantly improved for patients with colorectal cancer treated in high-volume hospitals , by high-volume surgeons and colorectal specialists .
- The volume-outcome relationship appears somewhat stronger for the individual surgeon than for the hospital.
- There were discrepancies in the definitions of caseload and colorectal specialist
- There were differences between US and non-US data, suggesting provider variability at hospital level between different countries, making it imperative that every country or healthcare system must establish audit systems to guide changes in the service provision based on local data, and facilitate centralisation of services as required.

D. Archampong, D. Borowski, et al. **Workload and surgeon's specialty for outcome after colorectal cancer surgery.** Cochrane Database Syst Rev. 2012 Mar 14;3:CD005391.

MODELLO di COORDINAMENTO REGIONALE

