

TRATAMENTO ADJUVANTE E PALIATIVO DE QT ASSOCIADO À INTERPRETAÇÃO GENÉTICA NO CÂNCER DE ENDOMÉTRIO

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Declaro não haver conflito de interesses para esta apresentação.



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Females



Breast	268,600	30%
Lung & bronchus	111,710	13%
Colon & rectum	67,100	8%
Uterine corpus	61,880	7%
Melanoma of the skin	39,260	4%
Thyroid	37,810	4%
Non-Hodgkin lymphoma	33,110	4%
Kidney & renal pelvis	29,700	3%
Pancreas	26,830	3%
Leukemia	25,860	3%
All Sites	891,480	100%



- ✓ Estudos com diferentes estadiamentos.
- ✓ Tumores com estadiamentos idênticos e estratificações de risco diferentes.
- ✓ Tumores com diferentes estadiamentos e estratificações de risco similares.
- ✓ QT; QT+ Rxt; QT+Rxt → QT.
- ✓ Braços controles variados (Rxt; QT; Rxt+QT).



Statement of the Uterus Committee of the Gynaecological Oncology Working Group (AGO) on the PORTEC-3 study

Stellungnahme der Kommission Uterus der Arbeitsgemeinschaft Gynäkologische Onkologie (AGO) zur PORTEC-3 Studie

ABSTRACT

The data on the adjuvant therapy of endometrial cancer (EC) are inconsistent. Recent studies of this topic such as PORTEC-3, GOG-258 and GOG-249 investigated the value of adjuvant radiotherapy

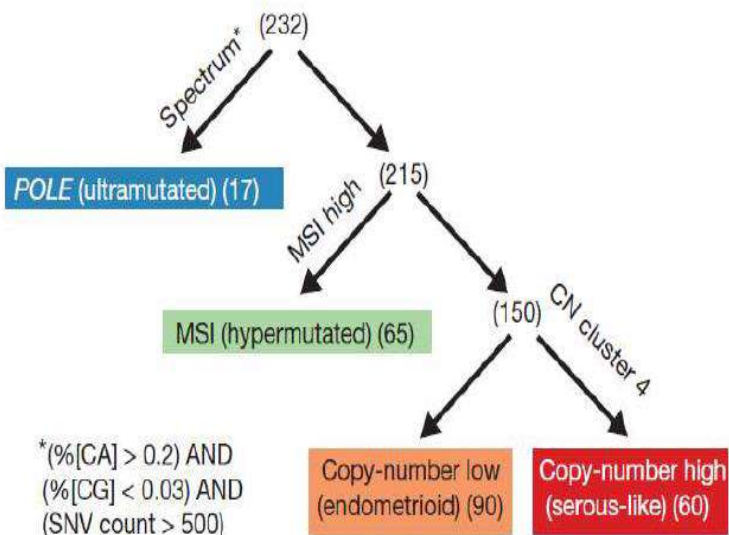
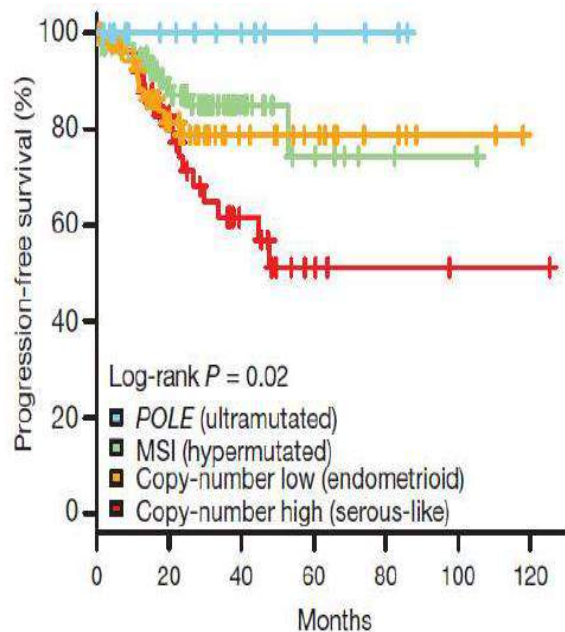
The data on the adjuvant therapy of endometrial cancer (EC) are inconsistent.

With this statement, the Uterus Committee of the Gynaecological Oncology Working Group (AGO) wishes therefore to interpret the new data and discuss them against the background of the new S3 guideline "Diagnosis, treatment and follow-up of patients with endometrial cancer".



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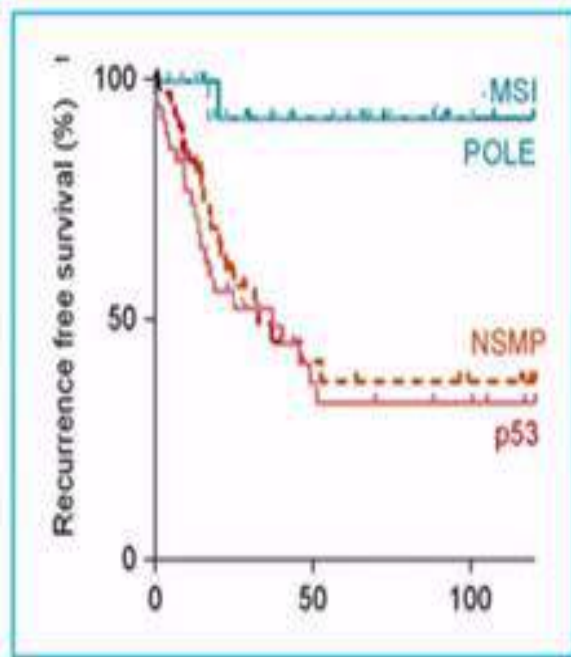
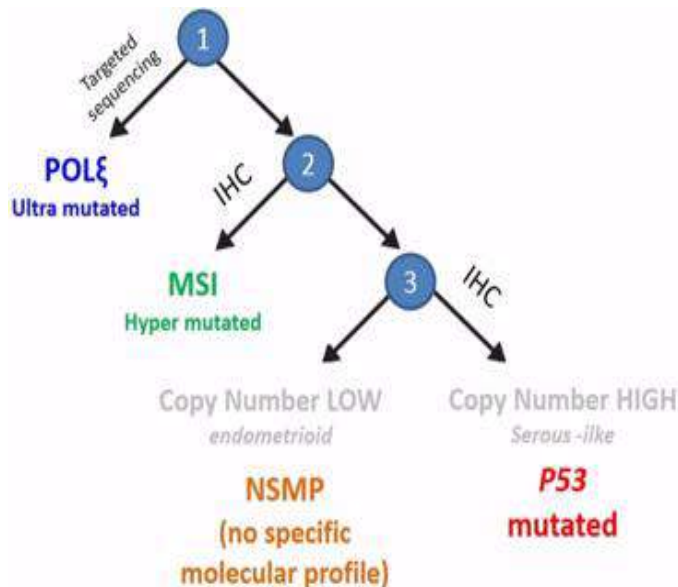


Welcome to the TransPORTEC website



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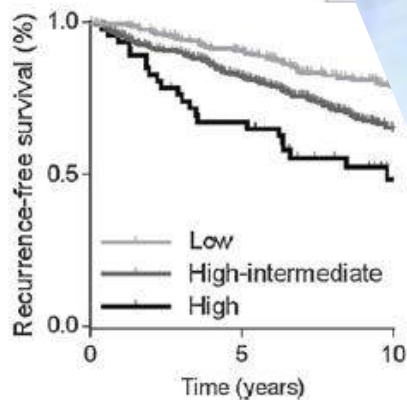


TRANSPORTEC/ProMisE

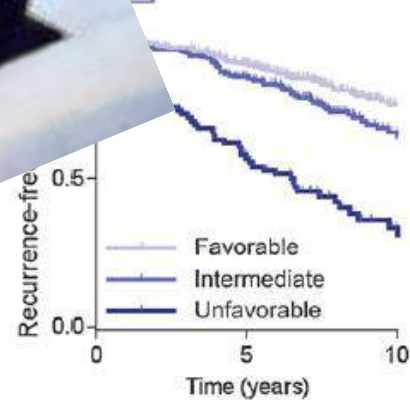
Clinicopathological features Age, stage, grade, LVSI	Mol Class 1 <i>POLE</i> mutant (i.e. <i>POLE</i> EDM)	Mol Class 2 MMRd (i.e. MSI)	Mol Class 3 NSMP (i.e. p53 wt)	Mol Class 4 p53 aberrant (i.e. p53 abn, p53-mutant)
Preoperative Low grade High grade	<u>Surgery</u>		Urgency and extent	
Stage I-II Low risk Intermediate risk High risk Stage III-IV	<u>Adjuvant treatment</u>		VBT/ EBT/ chemotherapy/ none	
<u>Surveillance</u>		3 months/ 6 months/ annual/discharge		
Recurrent disease	<u>Targeted therapy</u>		Checkpoint inhibitors/ small molecules/ PARPi/ hormonal treatment/ mTOR inhibition	



PORTEC-1/PORTEC-2



Clinical Molecular integrated



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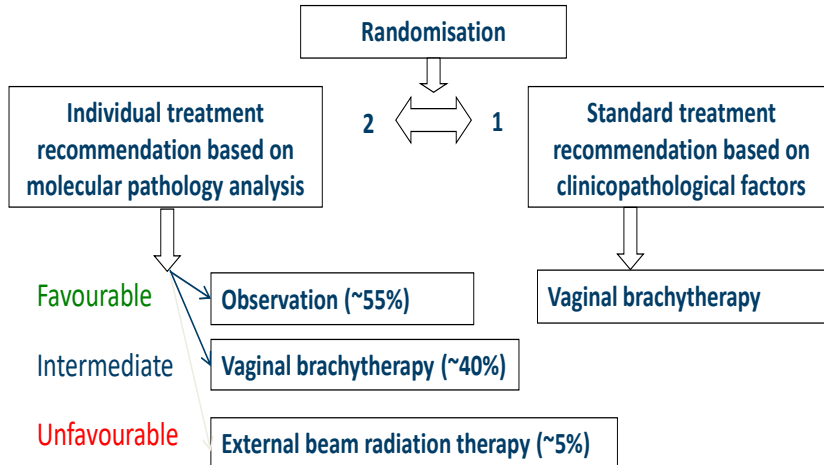
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PORTEC-4a



Inclusion criteria: FIGO 2009 – high intermediate risk

- Stage IA (with invasion), any age with grade 3
- Stage IB, grade 1-2 and age > 60
- Stage IB, grade 1-2 and LVSI+
- Stage IB, grade 3 without LVSI
- Stage II (microscopic), grade 1



Favorável:

- **POLE**
- **MMRd – ; CTNNB1 wt**

Intermediário:

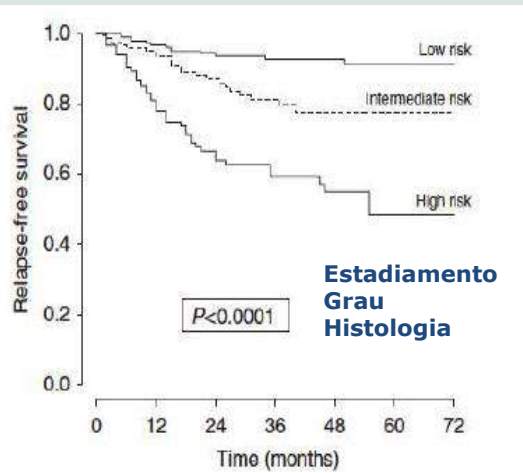
- **MMRd +**
- **MMRd – ; CTNNB1 mut**

Desfavorável:

- **ILV muito positiva;**
- **TP53 mut;**
- **> 10% L1CAM**

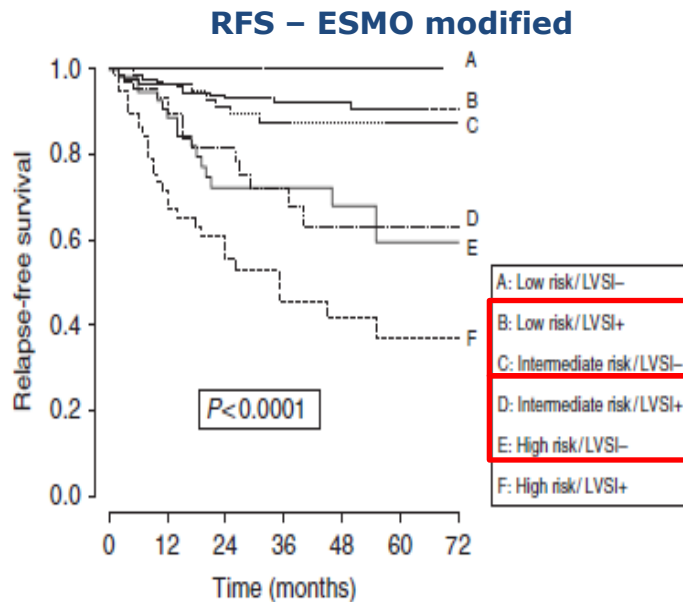
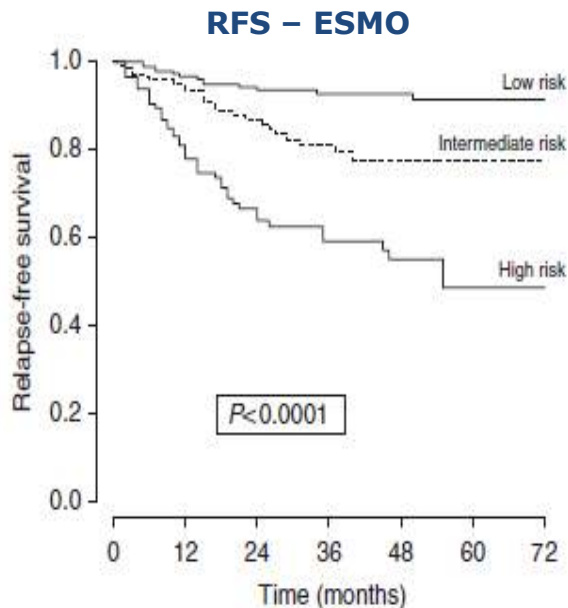
Estratificação de Risco

	Low risk	Intermediate risk	High intermediate risk	High risk
PORTEC 1	Grade 1 endometrial adenocarcinoma Stage IA	Endometrial adenocarcinoma Stage I based on uterine factors Grade 1 histology and myometrial invasion of $\geq 50\%$ Grade 2 histology with any myometrial invasion Grade 3 histology with myometrial invasion $< 50\%$	Age and myo	
GOG-99	Grade 1 or 2 endometrioid cancers confined to the endometrium Stage IA	Age ≤ 50 years and ≤ 2 pathological risk factors* Age 50–69 years and ≤ 1 pathological risk factors* Age ≥ 70 years and no pathological risk factors*	Any Age fact Age fact	
SEPAL	Stage IA or IB endometrioid type cancers with no LVSI	Stage IA grade 3 endometrioid adenocarcinoma with any grade of non-endometrioid carcinoma† or any LVSI Stage IB, grade 1–2 endometrioid adenocarcinoma with LVSI Stage IB, grade 3 endometrioid adenocarcinoma with any grade of non-endometrioid carcinoma or any LVSI Stage IC, stage II, any grade, any LVSI	..	
ESMO	Stage IA grade 1 and grade 2 endometrioid type	Stage IA grade 3 endometrioid type Stage IB grade 1 and grade 2 endometrioid type	..	
ESMO modified	Stage IA grade 1 and grade 2 endometrioid type with no LVSI	Stage IA grade 1 and grade 2 endometrioid type with LVSI Stage IA grade 3 endometrioid type with no LVSI Stage IB grade 1 and grade 2 endometrioid type with no LVSI	Stac LVSI	
			Stage IB grade 1 and grade 2 endometrioid type with LVSI Stage IB grade 3 endometrioid type with no LVSI	Non-endometrioid disease of all stages



PORTEC 1=Post-Operative Radiation Therapy in Endometrial Carcinoma. GOG=Gynaecologic Oncology Group adjuvant radiation for intermediate-risk endometrial cancers. LVSI=lymphovascular space invasion. SEPAL=Survival Effect of Para-Aortic Lymphadenectomy in endometrial cancer. ESMO=European Society for Medical Oncology. *Risk factors: grade 2 or 3 histology, positive LVSI, myometrial invasion to outer third. †Serous adenocarcinoma, clear cell adenocarcinoma, or other type of carcinoma.

Table 4: Variation in classifications of risk factors according to trials or society guidelines



Risco	Grupos
Baixo	Estádio IA endometrióide grau 1-2; ILV negativa
Intermediário	Estádio IB endometrióide grau 1-2; ILV negativa
Intermediário Alto	Estádio IA endometrióide grau 1-2; ILV positiva Estádio IA grau 3; ILV negativa ou positiva Estádio IB endometrióide grau 1-2; ILV positiva
Alto	Estádio IB endometrióide grau 3; ILV negativa ou positiva Estádio II Estádio III sem doença residual Tumores não endometrióides (seroso, células claras, indiferenciado ou carcinosarcoma)



G1	G2	G3
Estádio IA e fatores de risco ausentes		
Observação	Observação	Braquiterapia Vaginal ou Observação
Estádio IA e fatores de risco presentes		
Braquiterapia Vaginal ou Observação	Braquiterapia Vaginal ou Observação	Braquiterapia Vaginal
Estádio IB e fatores de risco ausentes		
Braquiterapia Vaginal ou Observação	Braquiterapia Vaginal ou Observação	Braquiterapia Vaginal e/ou EBRT ± terapia sistêmica (2B)
Estádio IB e fatores de risco presentes		
Braquiterapia Vaginal	Braquiterapia Vaginal	Braquiterapia Vaginal e/ou EBRT ± terapia sistêmica (2A)

Fatores de risco: idade \geq 60 anos; profundidade de invasão miometrial; invasão linfovascular positiva.



G1	G2	G3
Braquiterapia Vaginal e/ou EBRT	Braquiterapia Vaginal e/ou EBRT	EBRT ± Braquiterapia Vaginal ± terapia sistêmica (categoria 2B)



Estádio	Tratamento
IIIA-IVA	EBRT ± Braquiterapia Vaginal ± terapia sistêmica ou Terapia sistêmica ± Braquiterapia Vaginal
IVB	Terapia sistêmica ± EBRT ± Braquiterapia Vaginal



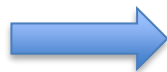
Estádio	Tratamento
IA	Terapia sistêmica ± Braquiterapia Vaginal ou EBRT ± Braquiterapia Vaginal (categoria 2B) ou Braquiterapia Vaginal (casos selecionados) Ou Observação (exceção)
IB, II-IV	Terapia sistêmica ± EBRT ± Braquiterapia Vaginal



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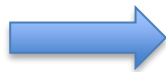
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Baixo Risco



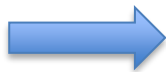
- Nenhum tratamento adjuvante

Intermediário



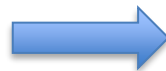
- Braquiterapia adjuvante
- Nenhum tratamento (> 60 anos)

Intermediário Alto



Linfonodo negativo:

- Braquiterapia
- Nenhum tratamento (opção)



Linfonodo não avaliado:

- EBRT (LVSI positivo)
- Braquiterapia (G3; LVSI negativo)

Alto Risco



Linfonodo negativo:

- EBRT (campo limitado)
- Braquiterapia (opção)



Linfonodo não avaliado:

- EBRT
- QT combinada ou sequencial



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Estádio II – EEC

Linfonodo negativo:

- Braquiterapia (G1-G2; LVSI negativo)
- EBRT ± braquiterapia (G3 ou LVSI positivo)

Linfonodo não avaliado:

- EBRT ± braquiterapia
- QT combinado ou sequencial (G3 ou LVSI positivo)

Estádio III – EEC

IIIA, IIIB, IIIC1:

- QT ± EBRT

IIIC2:

- QT ± EBRT campo estendido

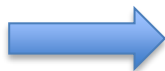


Seroso, células claras,
indiferenciado,
carcinossarcoma



Seroso ou células claras (estadiamento completo):

- QT (clinical trials incentiva)
- Estádio IA; ILV negativo: Braquiterapia
- Estádio ≥ IB: EBRT + QT (doença N+)



Carcinossarcoma/indiferenciado:

- Quimioterapia
- Considerar EBRT (clinical trials incentiva)



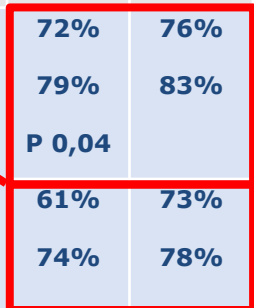
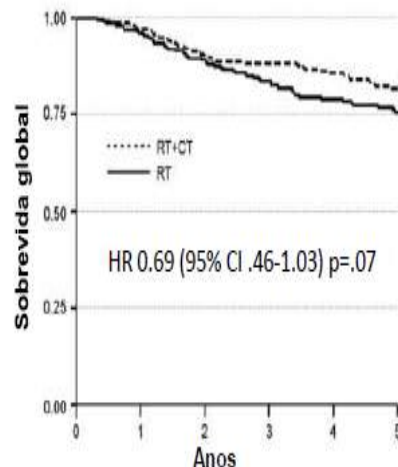
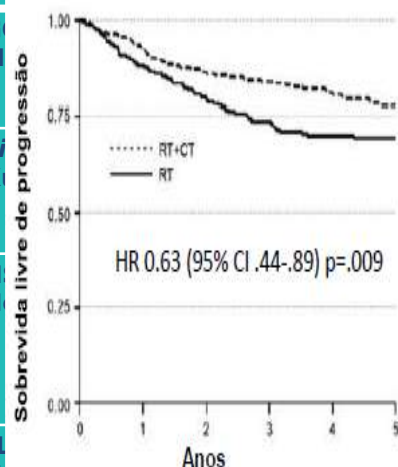
QT isolada vs Rxt isolada

Autor	Inclusão	N	Tratamentos	SLP 5a	SG 5a	Comentários
GOG 122 ¹ Randal <i>et al</i>	Estádio III-IV Qualquer histologia Doença residual < 2 cm	202	Rxt abdômen total (WAI)	38%	42%	QT superior às custas de toxicidade WAI melhor Rxt?
		194	AP x8	50%	55%	
				P<0,01	P<0,01	
Estudo italiano ² Maggi <i>et al</i>	IC-III (Figo 1988) Excluiu seroso ou células claras	166	Rxt pelve	63%	66%	Tendências: QT ↓ recidiva distância Rxt ↓ recidiva pélvica
		174	CAP x5	63%	69%	
JCOG 2033 ³ Susumu <i>et al</i>	IC-IIIC (Figo 1988) Endometrióide > 50% invasão miométrio	193	Rxt pelve	83%	85,3%	Possível benefício em grupos de maior risco Ic > 70 anos; G3 II ou IIIa
		192	CAP x3	81%	86,7%	



QT+Rxt vs Rxt isolada

Autor	Inclusão	N	Tratamentos	SLP 5a	SG 5a
G M F K	Excluindo seroso e células claras	80	ve		61%
			→ Ax6		66%
N H			t course)		84,7%
			elve (split)		82,1%
II Hogberg et al			ve	72%	76%
			s variadas após	79%	83%
				P 0,04	
			ve	61%	73%
			AP x3 → Rxt pelve	74%	78%



GOG 249 (QT+Rxt vs Rxt)

➤ Endometrioide, E I (risco GOG33):

- ≥ 18 anos, 3 fatores risco
- ≥ 50 anos, ≥ 2 fatores risco
- ≥ 70 anos, 1 fator risco
- E II
- E I-II seroso ou cel. Claras
- Linfadenect não mandatória (**89% fizeram**)

Fatores risco: G2-3, IB, ILV+

N=300

Rxt (4500-5040 cGy)

N=301

Braqui → Carboplatina AUC6 + Paclitaxel 175 mg/m² x3

End-point 1ário: RFS

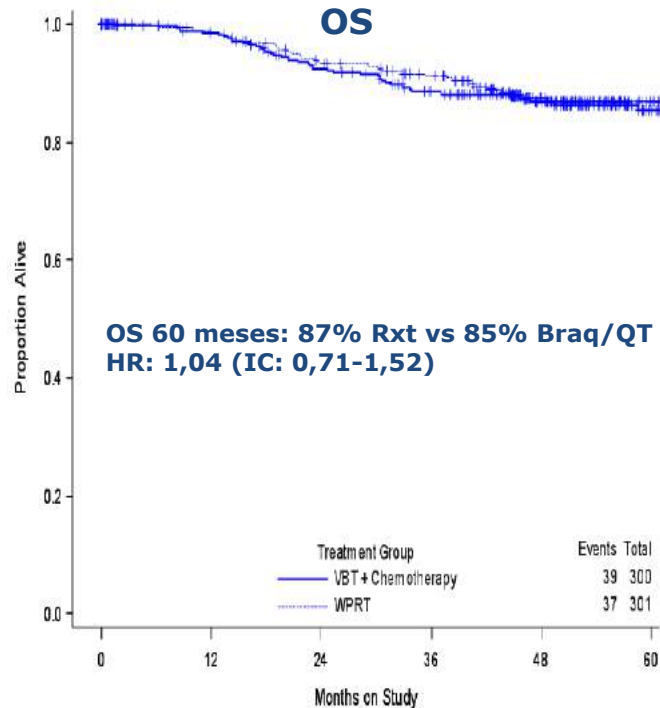
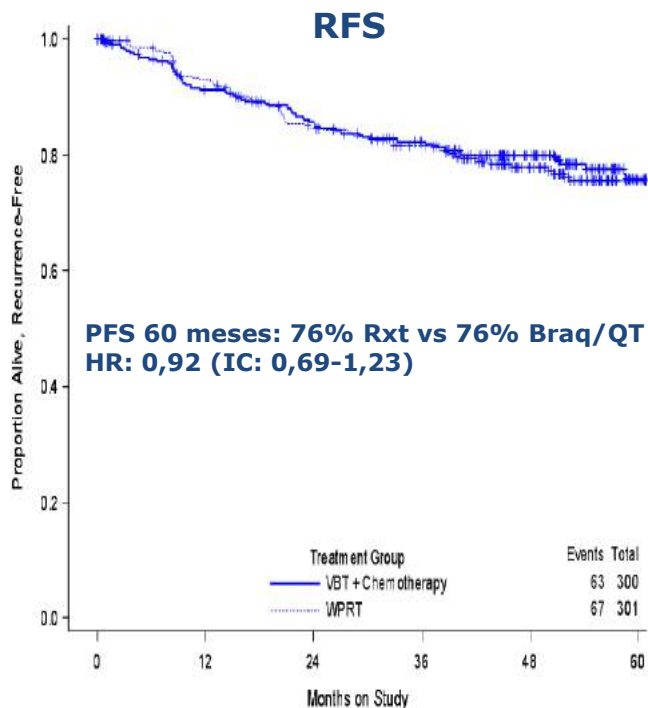
~ 75% Estádio I,
~ 74% Endometrióide



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GOG 249 (QT+Rxt vs Rxt)



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PORTEC-3 (QT+Rxt→QT vs Rxt)

➤ Carcinoma endometrióide:

- Estádio IA; G3; ILV+
- Estádio IB; G3
- Estádio II
- Estádio III

➤ Carcinoma células claras/seroso:

- Estádio I-III (>25%)

➤ PS 0-2

➤ Sem doença residual

➤ Revisão patológica pré randomização

➤ Linfadenectomia (amostragem ou sistemática)

N=330

Rxt pélvica 4860 cGy (Braquiterapia (E II))

N=331

Rxt pélvica 4860 cGy + Cisplatina 50 mg/m²
x2 (Braquiterapia (E II)) →
Carboplatina AUC5 + Paclitaxel 175 mg/m²x4

End-point 1ário: RFS e OS

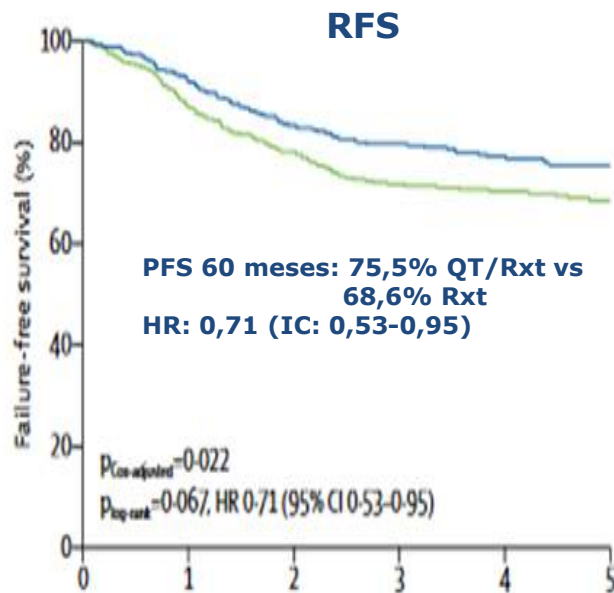
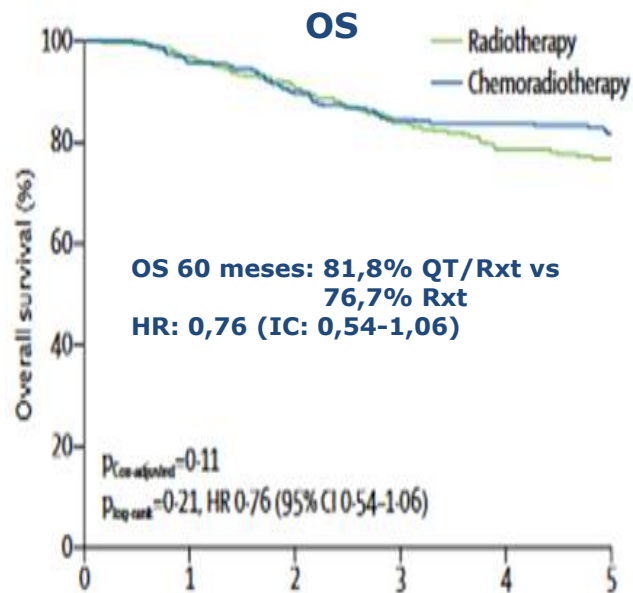
~ 45% Estádio III,
~ 72% Endometrióide
~ 58% ILV+
~ 42% sem linfadenectomia



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PORTEC-3 (QT+Rxt→QT vs Rxt)



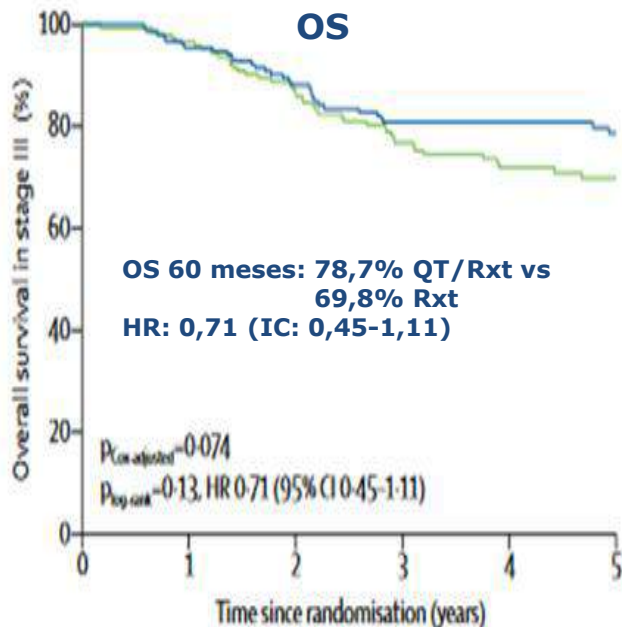
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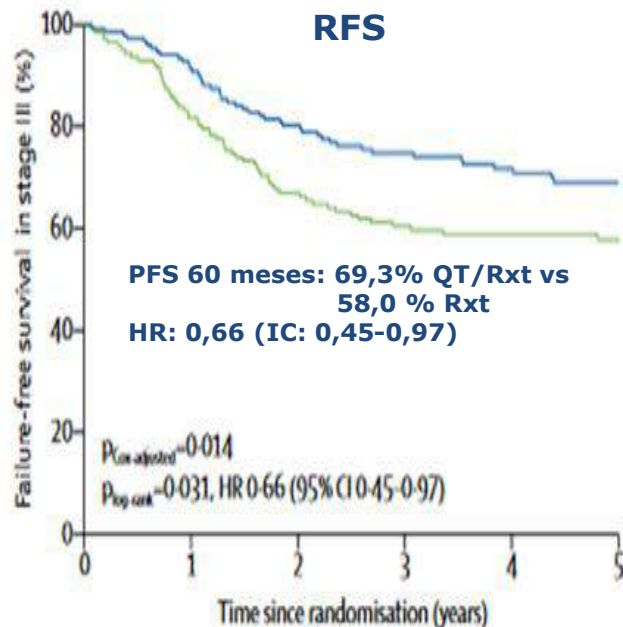
PORTEC-3 (QT+Rxt→QT vs Rxt)

EC III

OS



RFS

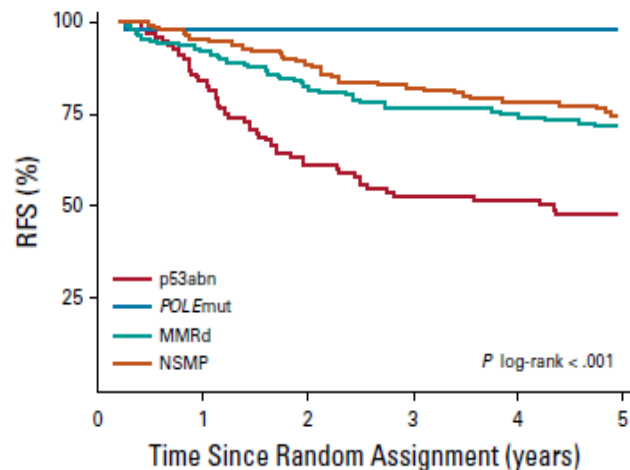


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PORTEC-3 e ProMisE

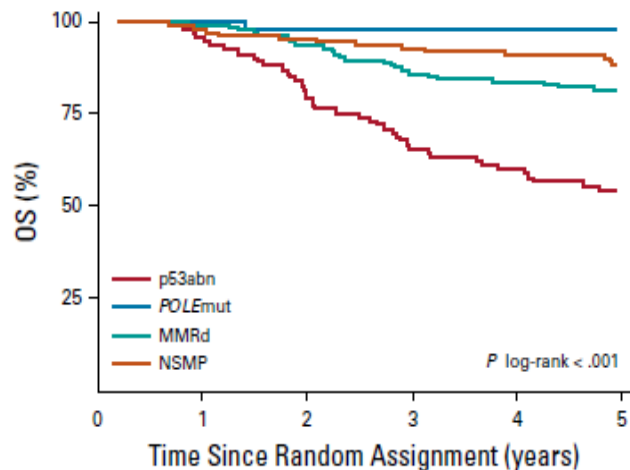
A



No. at risk:

	0	1	2	3	4	5
p53abn	93	72	57	49	44	32
POLEmut	51	50	50	49	48	37
MMRd	137	124	112	102	96	74
NSMP	129	122	113	105	94	69

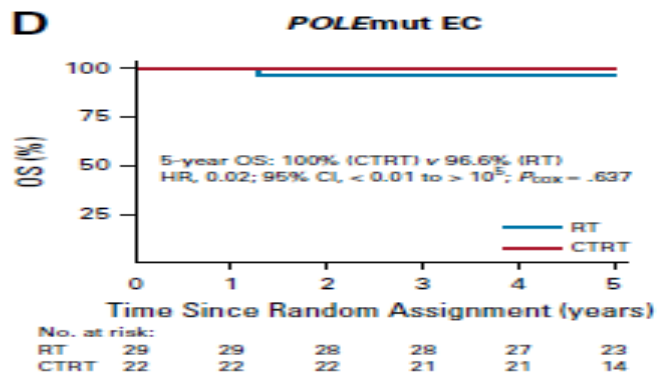
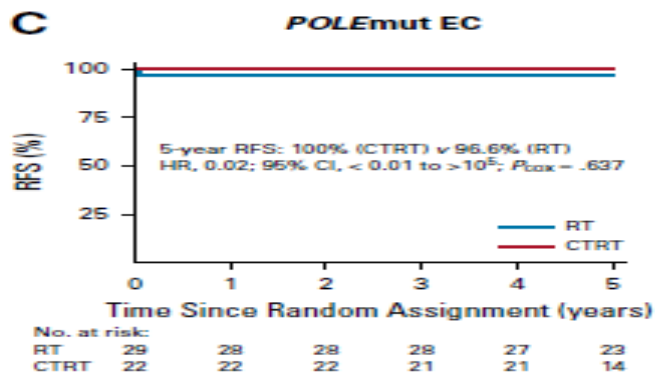
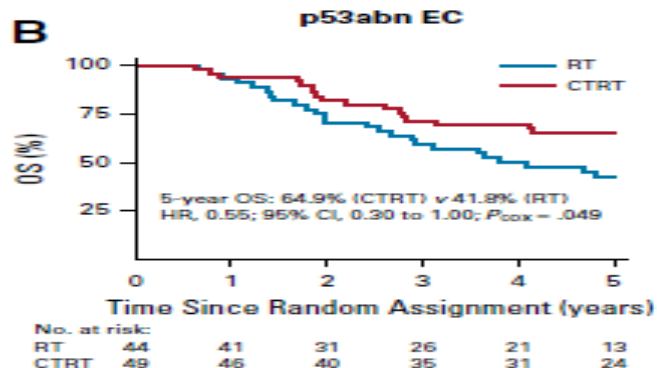
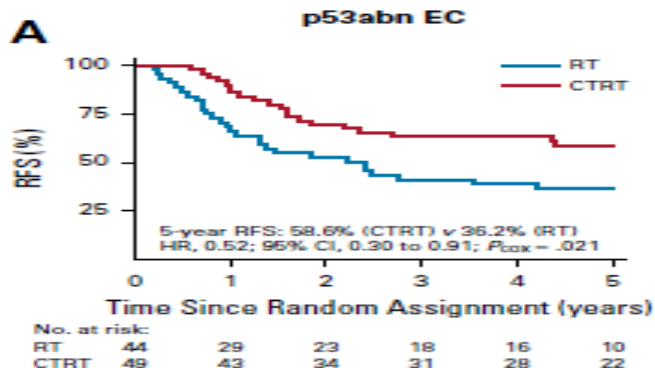
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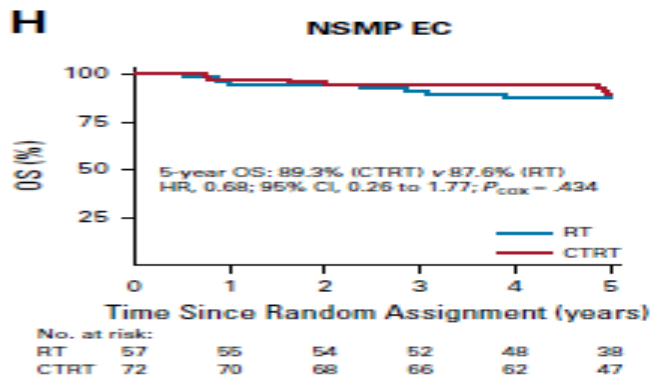
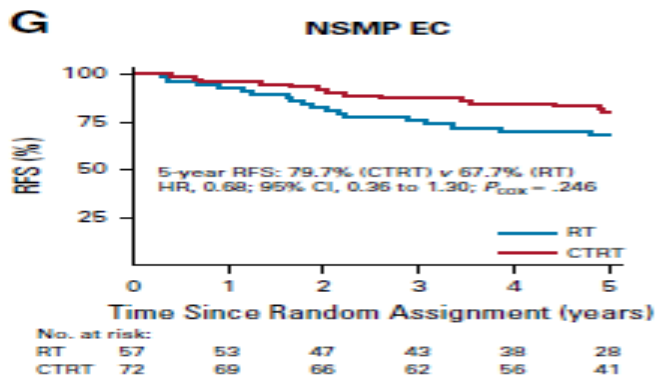
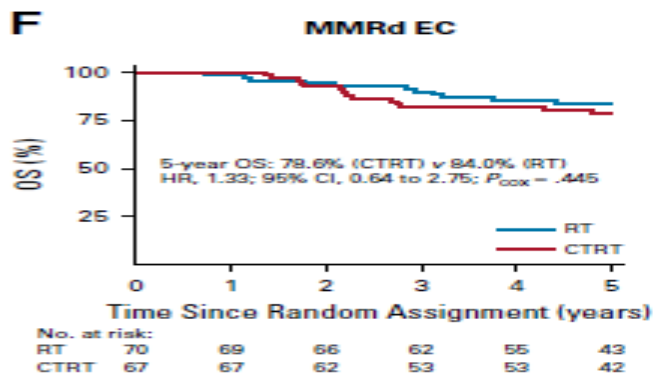
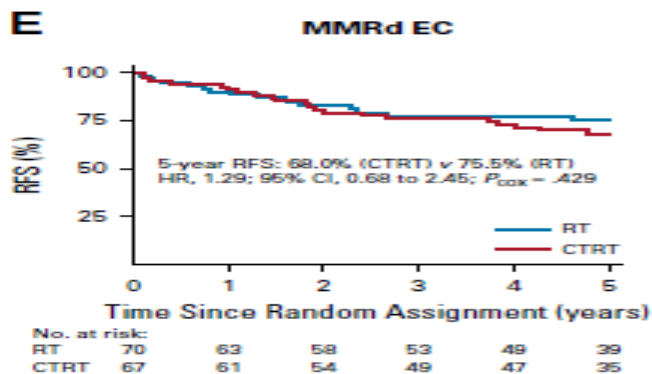
No. at risk:

	0	1	2	3	4	5
p53abn	93	87	71	61	52	37
POLEmut	51	51	50	49	48	37
MMRd	137	136	128	115	108	85
NSMP	129	125	122	118	110	85

PORTEC-3 e ProMisE



PORTEC-3 e ProMisE



GOG 258 (QT+Rxt→QT vs QT)

- **Estádio III ou IVA:**
 - Doença residual $\leq 2,0$ cm
- **Estádio I-II células claras/seroso:**
 - Lavado positivo
- **PS 0-2**
- **Cirurgia prévia: HTA + SOOB; amostragem linfonodal pélvico e paraAo opcional**

N=406

Carboplatina AUC6 + Paclitaxel 175 mg/m² x6

N=407

Rxt pélvica + Cisplatina 50 mg/ m² x2
Carboplatina AUC5 + Paclitaxel 175 mg/m² x4

End-point 1ário: RFS

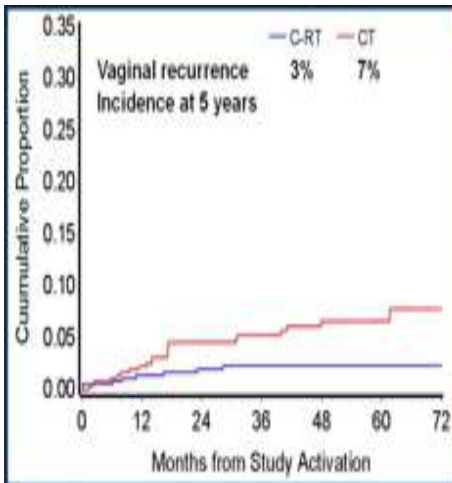
**~ 98% Estádio III,
~ 80% Endometrióide**



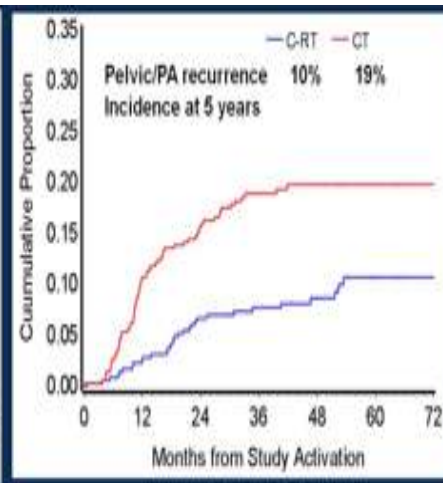
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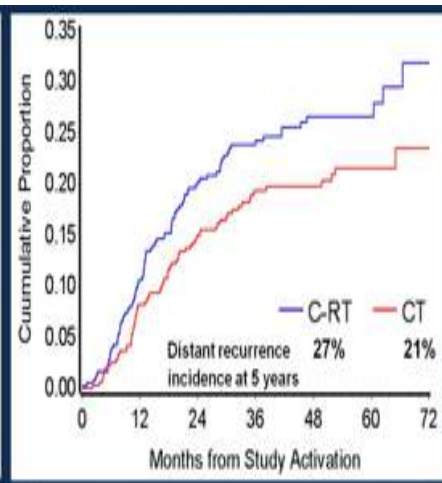
GOG 258 (QT+Rxt→QT vs QT)



QT/Rxt vs QT HR: 0,36
(IC: 0,16-0,82)



QT/Rxt vs QT HR: 0,43
(IC: 0,28-0,66)



QT/Rxt vs QT HR: 1,36
(IC: 1,00-1,86)

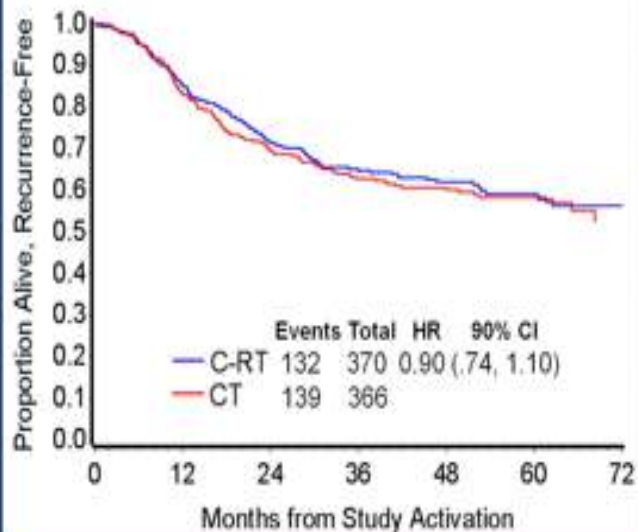


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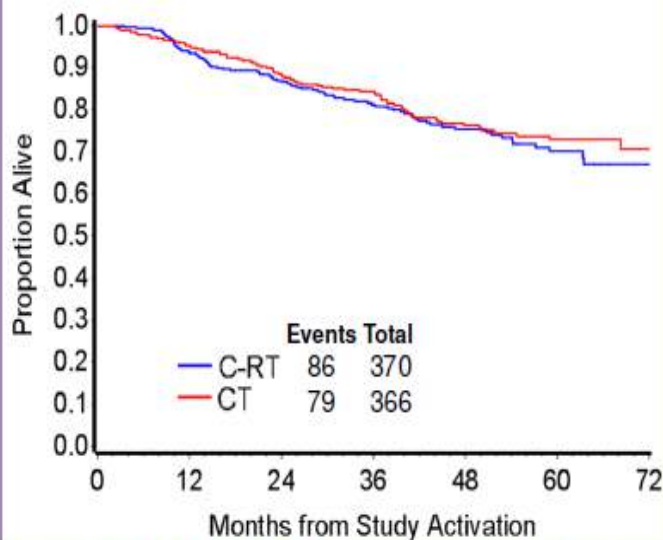
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GOG 258 (QT+Rxt→QT vs QT)

Recurrence-Free Survival



Overall Survival



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BRAÇOS EXPERIMENTAIS

BRAÇOS CONTROLES

	AC	AP	AT	TAP	TC
A	GOG 48 ¹	GOG 107 ²			
AC					
AP		GOG 139 ³	GOG 163 ⁴	GOG 177 ⁵	
TAP					GOG 209

A – Doxorrubicina; AP – Doxorrubicina/Cisplatina;
 AC – Doxorrubicina/Ciclofosfamida;
 AT – Doxorrubicina/Paclitaxel
 TAP – Paclitaxel/Doxorrubicina/Cisplatina;
 TC – Paclitaxel/Carboplatina

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2. Thigpen J.T., et al. *J Clin Oncol* 2004;22:3902–08.
3. Gallion H.H., et al. *J Clin Oncol* 2003;21:3808–13.
4. Fleming G.F., et al. *Ann Oncol* 2004;15:1173–78.
5. Fleming G.F., et al. *J Clin Oncol* 2004;22:2159–66.
6. Miller D., et al. LBA1. *Gynecol Oncol* 2012;125:771-3.



E V A

GRUPO
BRASILEIRO
DE TUMORES
GINECOLÓGICOS

Crítérios de inclusão

- Carcinoma de endométrio
- 1ª linha de QT
- EC III ou IV ou recorrente
- Qualquer histologia
- PS 0-2

N=129

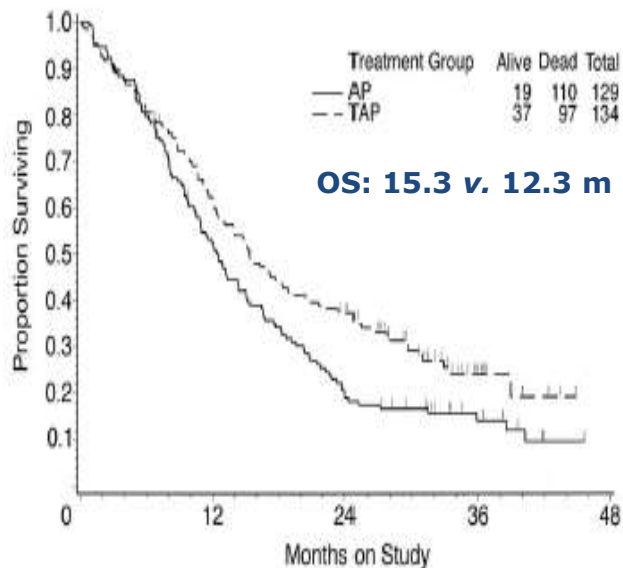
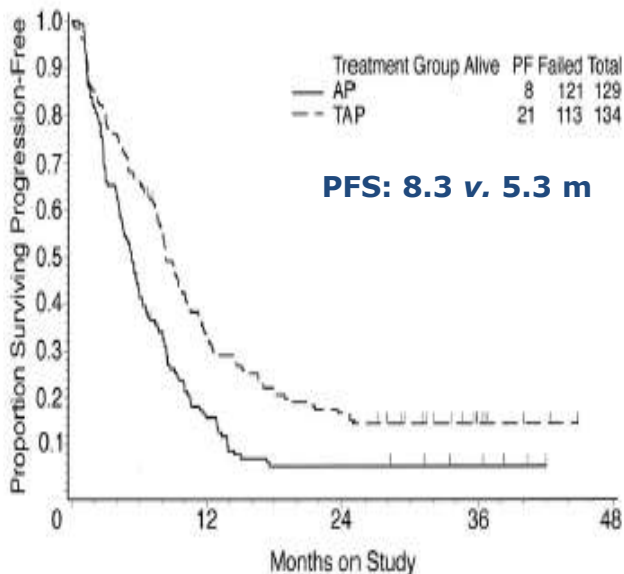


N=134

**Doxorrubicin 60 mg/m2
Cisplatin 50 mg/m2****Doxorrubicin 45 mg/m2 – D1
Cisplatin 50 mg/m2 – D1
Paclitaxel 160 mg/m2 – D2
Filgrastim****End-point 1ário: OS****End-point 2ário: PFS; RR; toxicidade**

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ORR: 57% v. 34%



EVA

GRUPO
BRASILEIRO
DE TUMORES
GINECOLÓGICOS

Crítérios de inclusão

- Carcinoma de endométrio
- 1ª linha de QT
- EC III ou IV ou recorrente
- PS 0-2

N=1312



Carboplatin AUC 6 – D1
Paclitaxel 175 mg/m² – D1
Q 21 days x 7

Doxorrubicin 45 mg/m² – D1
Cisplatin 50 mg/m² – D1
Paclitaxel 160 mg/m² – D2
Filgrastim
Q 21 days x 7

End-point 1ário: não inferioridade OS
End-point 2ário: não inferioridade PFS



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Evento	TAP (%)	TC (%)	<i>p</i>
Neutropenia	52	79	<0.01
Neutropenia febril	7	6	NS
Trombocitopenia (gr 3/4)	23	12	<0.01
Outras hematológicas	30	22	<0.01
Neurológicas (gr > 2)	26	19	<0.01
Vômitos	7	4	<0.01
Diarreia	6	2	<0.01
Metabólica	14	8	<0.01
Descontinuação toxicidade	18	12	0.01
Completo 7 ciclos	62	69	0.01

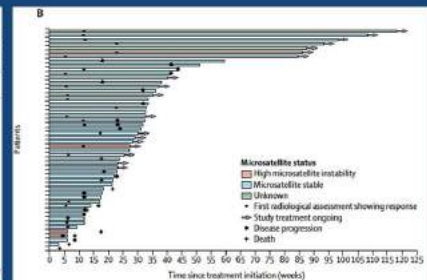
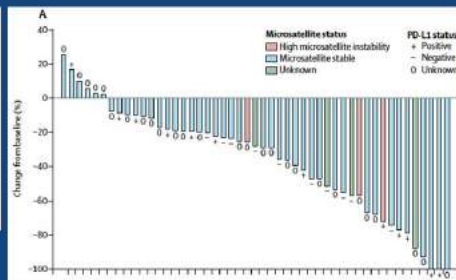
Resultados	TAP (m)	TC (m)	HR
Mediana PFS	14	14	1.03
Mediana OS	38	32	1.01
OS (90% CI – não inferioridade)		1.16	<i>p</i> >0.1



Combinatorial IO approach: Lenvatinib + Pembrolizumab (Keynote 146)

- Open-label, single-arm, phase 2 study done at 11 centers in the USA (N = 53)
- 20 mg oral lenvatinib daily plus 200 mg IV pembrolizumab every 3 weeks
- 21 (39.6% [95% CI 26.5–54.0]) patients had an objective response at week 24

Histological subtypes	
Endometrioid adenocarcinoma	
FIGO grade 1	5 (9%)
FIGO grade 2	11 (21%)
FIGO grade 3	6 (11%)
Serous adenocarcinoma	20 (38%)
Clear cell adenocarcinoma	2 (4%)
Other adenocarcinomas or adenocarcinomas not otherwise specified	9 (17%)
Previous surgical tumour debulking	53 (100%)
Number of previous systemic therapies	
One	23 (43%)
Two	23 (43%)
Three or more	7 (13%)



Makker V et al. The Lancet 2019

Breakthrough designation granted by FDA Aug 6, 2018

PRESENTED AT: **2020 ASCO ANNUAL MEETING**

#ASCO20
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PRESENTED BY:

UC San Diego
 SCHOOL OF MEDICINE

Combinatorial IO approach: Lenvatinib + Pembrolizumab

- **ESMO 2019: updated outcomes data on a total of 108 patients treated with the combination regimen**
- **In the not MSI-H or dMMR (n=94) cohort, the ORR rate was 38.3% (10.6% complete response and 27.7% partial response; 95% CI 29.7 -48.7).**
 - Although nearly half of the enrolled patients had received 2 or more prior treatment regimens, the median DOR was not reached (NR)
 - Toxicity remained an issue: (TRAEs) occurred in 105 (97%) of patients (90% \leq grade 3, 7% \geq grade 4).
- **Treatment-related adverse events led to study-drug interruption of one or both drugs in 78 (72%) patients and resulted in dose reductions of lenvatinib in 70 (65%) subjects on trial; 20 (19%) patients discontinued one or both drugs due to a treatment related adverse event.**

September 17, 2019, the US FDA granted accelerated approval of the combination

Conclusions...

- Dynamic & promising time in endometrial cancer therapeutics
- Multiple studies exploring the utility of various combinations
- Aside from MSI-H/dMMR (and TMB) and possibly HER2/neu no defined biomarkers

Pembrolizumab

Nivolumab

Atezolizumab

Avelumab

Durvalumab

Cemiplimab

Dostarlimab

Lucitanib + Nivolumab
(NCT04042116)

• Avelumab single agent

?

• Single agent
(dMMR/pMMR)
• C/T + TSR-042

• Lenvatinib + Pembrolizumab
• C/T + pembrolizumab

• AtTEnd/MaNGO

• Durvalumab single agent or + olaparib (DOMEK)

- ✓ A inclusão de pacientes por estratificação de risco têm dificultado a definição dos tratamentos (**PORTEC 3**).
- ✓ CEE estágio I e II – sem indicação de QT (**PORTEC 3; GOG 249**) com linfadenectomia realizada.
- ✓ CEE estágio III e IV – indicação de QT (**GOG 122; GOG 258**) associado ou não à radioterapia (**PORTEC 3**).



- ✓ Subtipo seroso ou células claras estágio IA – sem indicação de QT.
- ✓ Subtipo seroso ou células claras estágio IB-II – indicação controversa (**GOG 249; GOG 258; PORTEC 3**).
- ✓ Seleção molecular poderá identificar com maior precisão os pacientes que necessitam de QT adjuvante.



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