



Where **Science** Becomes **Hope**

PRO: IMMUNOTHERAPY FOR LOCALLY ADVANCED CERVICAL CANCER

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DDHO 2024



**EMORY
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INSTITUTE**

National Cancer Institute-Designated
Comprehensive Cancer Center

NCI

**Designated
Comprehensive
Cancer Center**



Where Science Becomes Hope

No Disclosures



EMORY
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INSTITUTE

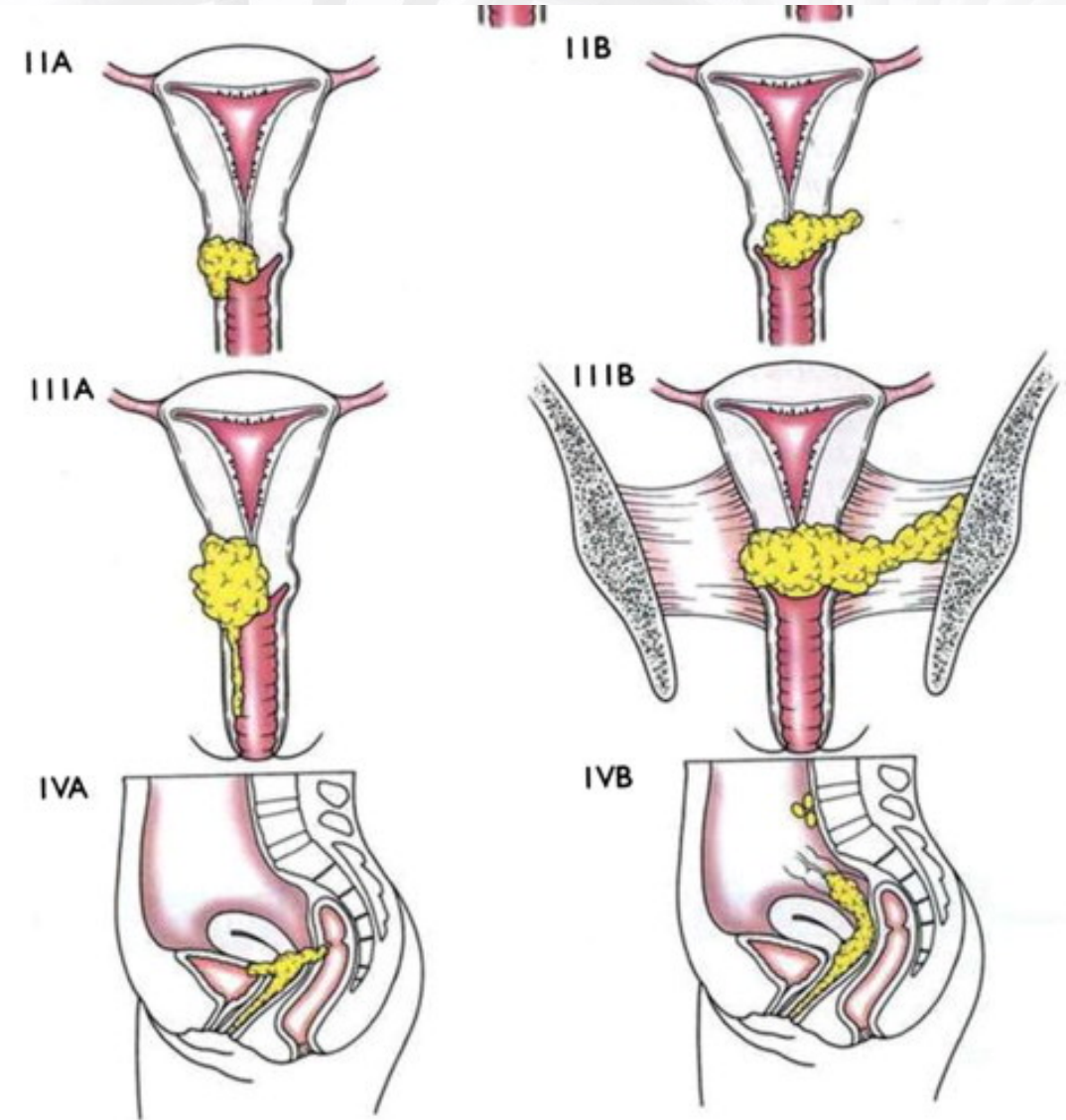
National Cancer Institute-Designated
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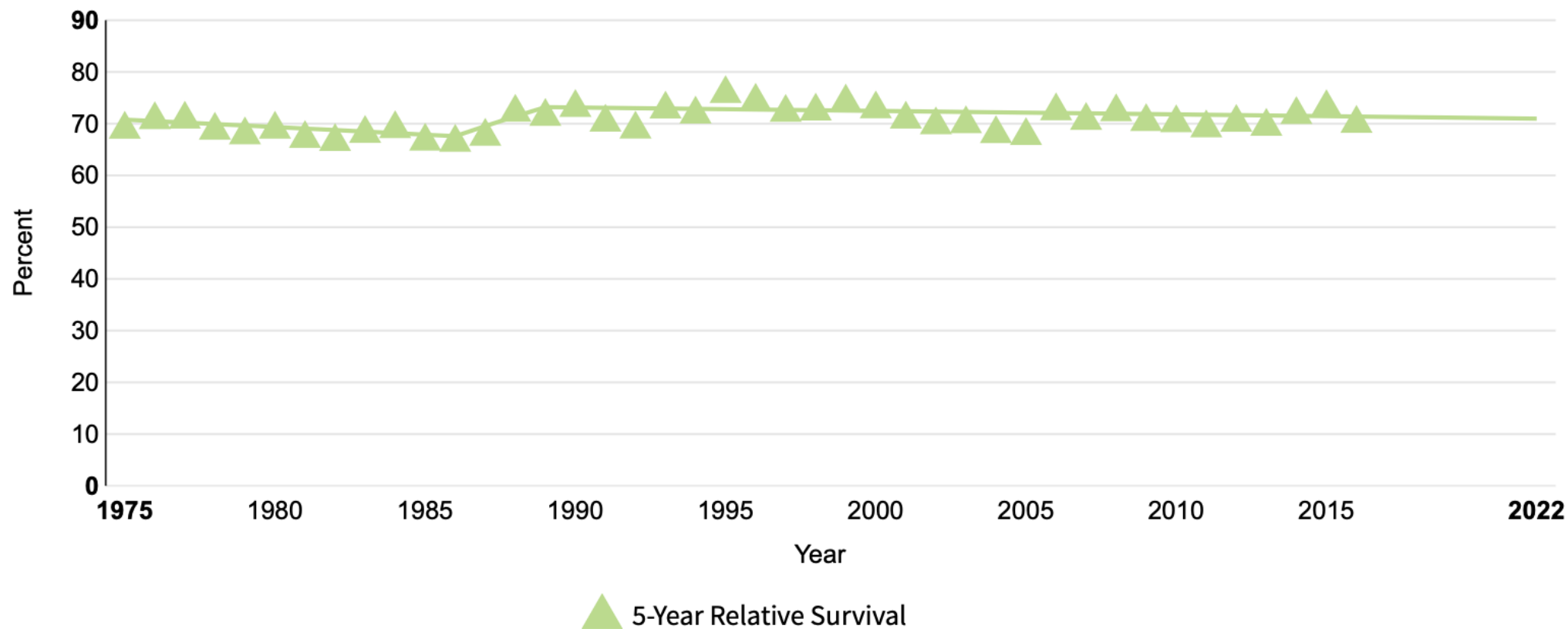
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LOCALLY ADVANCED CERVICAL CANCER

- **FIGO Stage IIA-IVA**
- **40% of all cervical cancer**
- **5-year survival: 25-60%**
- **Chemoradiation has been standard of care for 25 years**
- **Adjuvant chemotherapy did not improve survival (OUTBACK trial)**



LOCALLY ADVANCED CERVICAL CANCER



SEER 8 5-Year Relative Survival Percent from 1975–2016, All Races, Females.

LOCALLY ADVANCED CERVICAL CANCER

Table 4: Comparison of the 2009 and 2018 FIGO Staging Classifications

Stage	2009 FIGO Definition	2018 FIGO Definition
I	Confined to the cervix	Confined to the cervix
IA	≤5 mm depth and ≤7 mm width	≤5 mm depth*
IA1	≤3 mm depth	≤3 mm depth
IA2	>3 mm and not >5 mm depth	>3 mm and ≤5 mm depth
IB	>5 mm depth	>5 mm depth
IB1	≤4 cm maximum diameter	≤2 cm maximum diameter*
IB2	>4 cm maximum diameter	>2 cm and ≤4 cm maximum diameter*
IB3	...	>4 cm maximum diameter*
II	Beyond the uterus but not involving the lower one-third of the vagina or pelvic sidewall	Beyond the uterus but not involving the lower one-third of the vagina or pelvic sidewall
IIA	Upper two-thirds of the vagina	Upper two-thirds of the vagina
IIA1	Upper two-thirds of the vagina and ≤4 cm	Upper two-thirds of the vagina and ≤4 cm
IIA2	Upper two-thirds of the vagina and >4 cm	Upper two-thirds of the vagina and >4 cm
IIB	Parametrial invasion	Parametrial invasion
III	Lower vagina, pelvic sidewall, and ureters	Lower vagina, pelvic sidewall, ureters, and lymph nodes*
IIIA	Lower one-third of the vagina	Lower one-third of the vagina
IIIB	Pelvic sidewall	Pelvic sidewall
IIIC	...	Pelvic and para-aortic lymph node involvement*
IIIC1	...	Pelvic lymph node involvement*
IIIC2	...	Para-aortic lymph node involvement*
IV	Adjacent and distant organs	Adjacent and distant organs
IVA	Rectal or bladder involvement	Rectal or bladder involvement
IVB	Distant organs outside the pelvis	Distant organs outside the pelvis

Source.—Reference 18.

*Changes made in the 2018 FIGO staging classification.

LOCALLY ADVANCED CERVICAL CANCER



National
Comprehensive
Cancer
Network®

NCCN Guidelines Version 1.2024 Cervical Cancer

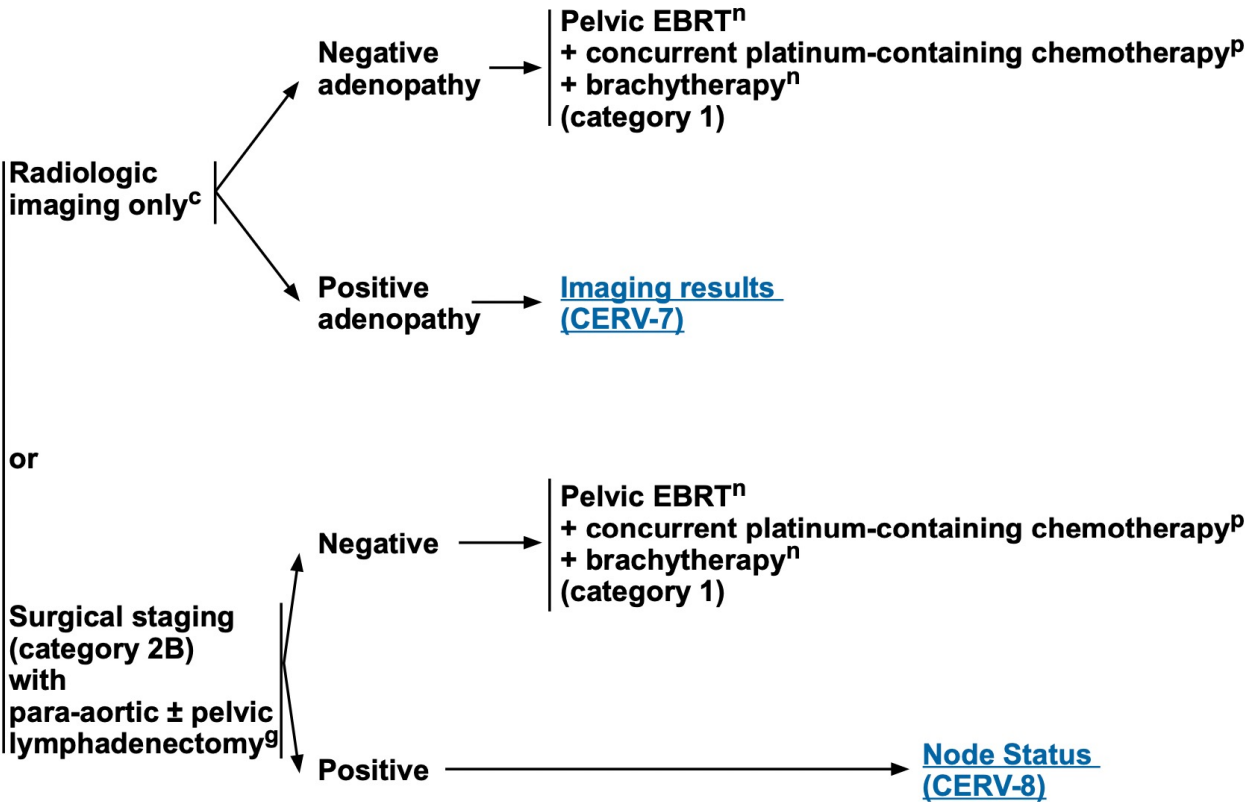
[NCCN Guidelines](#)
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[Discussion](#)

CLINICAL STAGE

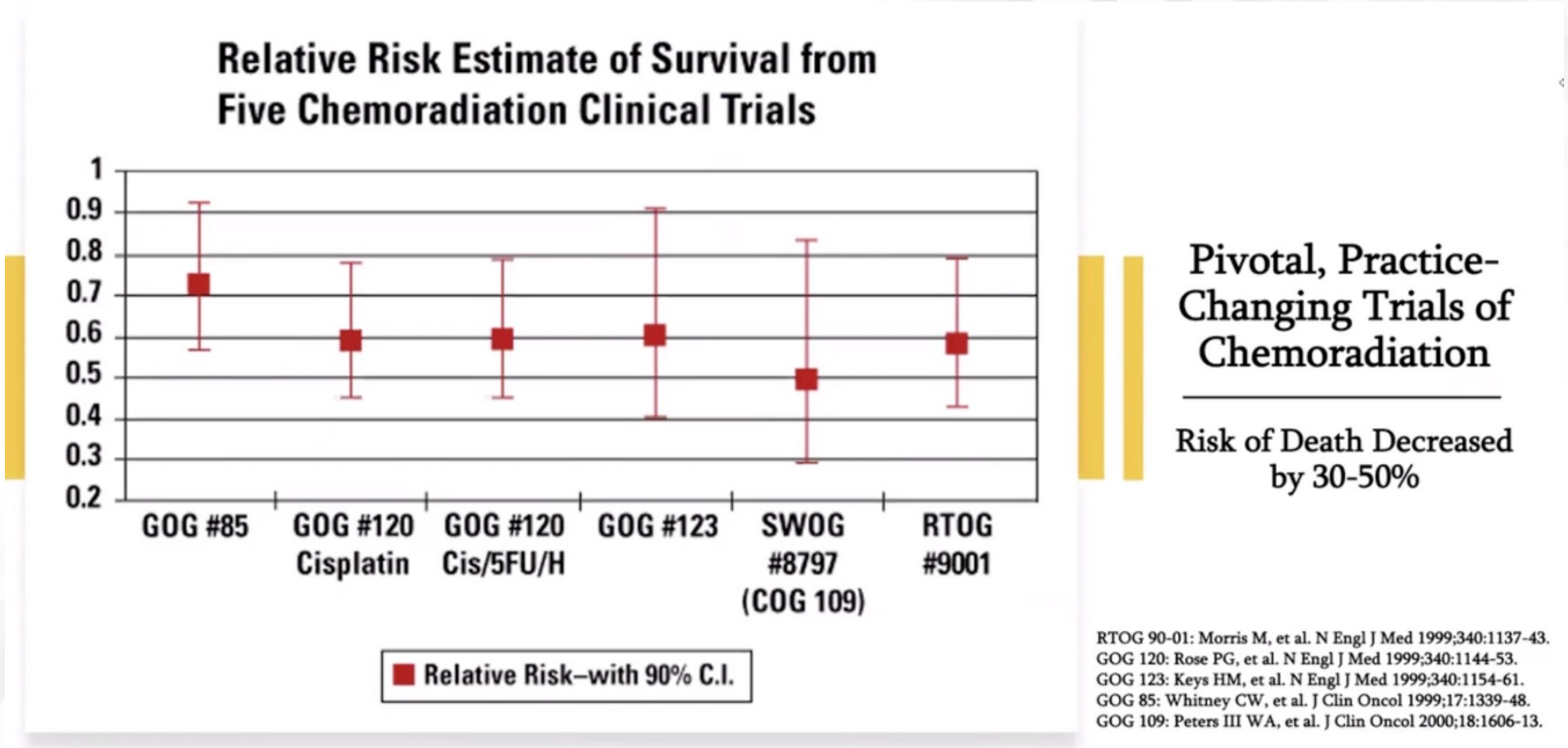
ADDITIONAL WORKUP

PRIMARY TREATMENT

Stage IB3, Stage IIA2
(See [CERV-4](#) for alternative
recommendations for these patients)
Stage IIB, III, IVA



LOCALLY ADVANCED CERVICAL CANCER



1999 NCI Alert: use combination of chemo + RT instead of RT alone to treat invasive cervical cancer

KEYNOTE A18

ENGOT-cx11/GOG-3047/KEYNOTE-A18: Randomized, Double-Blind, Phase 3 Study

Key Eligibility Criteria

- FIGO 2014 stage IB2-IIB (node-positive disease) or FIGO 2014 stage III-IVA (either node-positive or node-negative disease)
- RECIST 1.1 measurable or non-measurable disease
- Treatment naïve

Stratification Factors

- Planned EBRT type (IMRT or VMAT vs non-IMRT or non-VMAT)
- Stage at screening (stage IB2-IIB vs III-IVA)
- Planned total radiotherapy dose (<70 Gy vs ≥70 Gy [EQ2D])

R
1:1
N = 1060

Cisplatin 40 mg/m² QW for
5 cycles^a + EBRT followed by
brachytherapy
+
Pembrolizumab 200 mg Q3W
for 5 cycles

Pembrolizumab 400 mg Q6W
for 15 cycles

Cisplatin 40 mg/m² QW for
5 cycles^a + EBRT followed by
brachytherapy
+
Placebo Q3W
for 5 cycles

Placebo Q6W
for 15 cycles

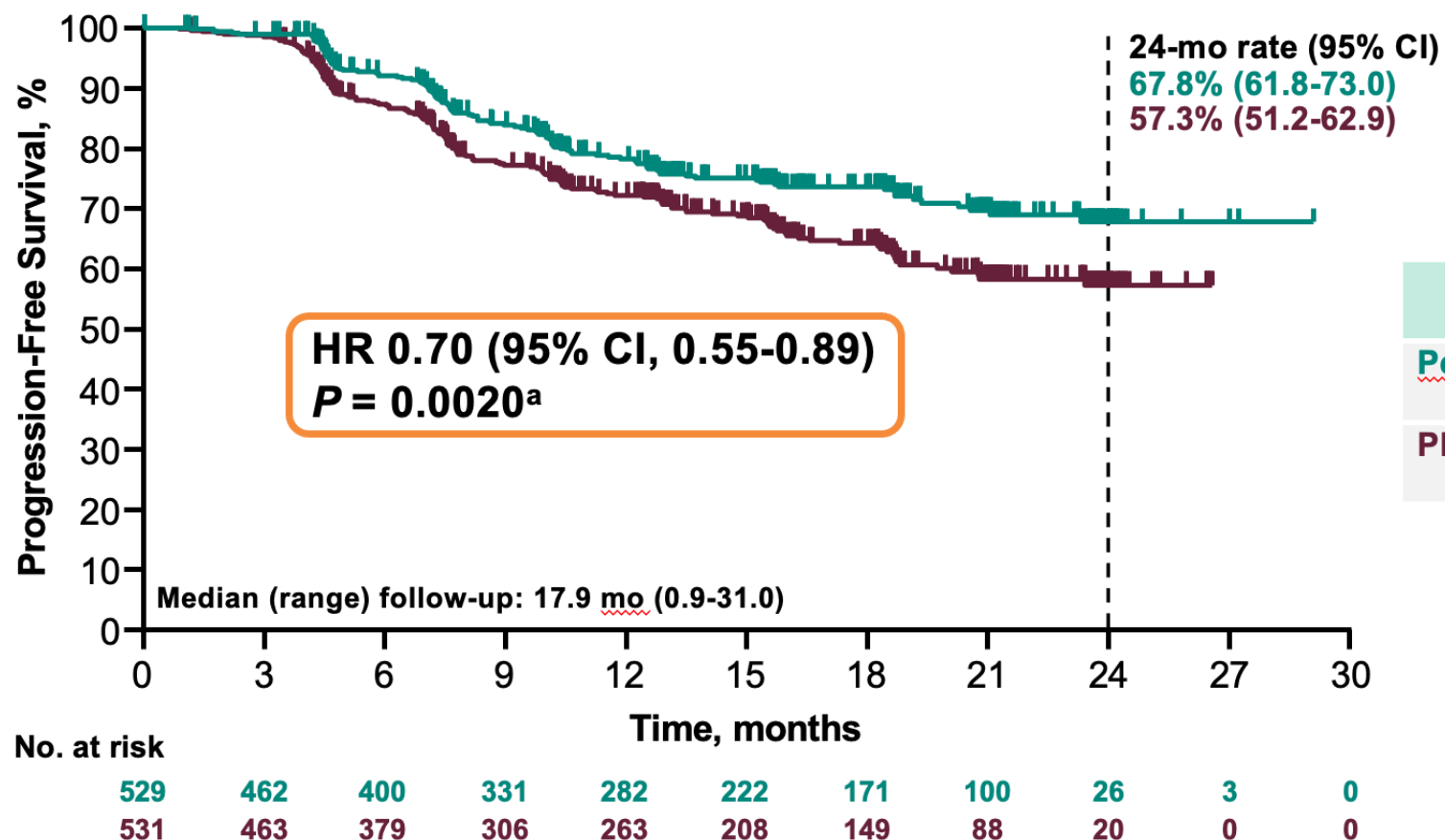
Lorusso, ESMO 2023

KEYNOTE A18

- FIGO 2014 stage IB2-IIB with + pelvic or para-aortic nodes or FIGO 2014 stage III-IVA with any nodal status
- 52% non-white race/ethnicity
- 95% PDL1 CPS ≥ 1
- High quality radiation therapy – rigorous plan evaluation process
- 1060 patients
- Accrued over <2 years (2020-2022)
- Co-primary endpoints: PFS and OS

Lorusso, Lancet 2024

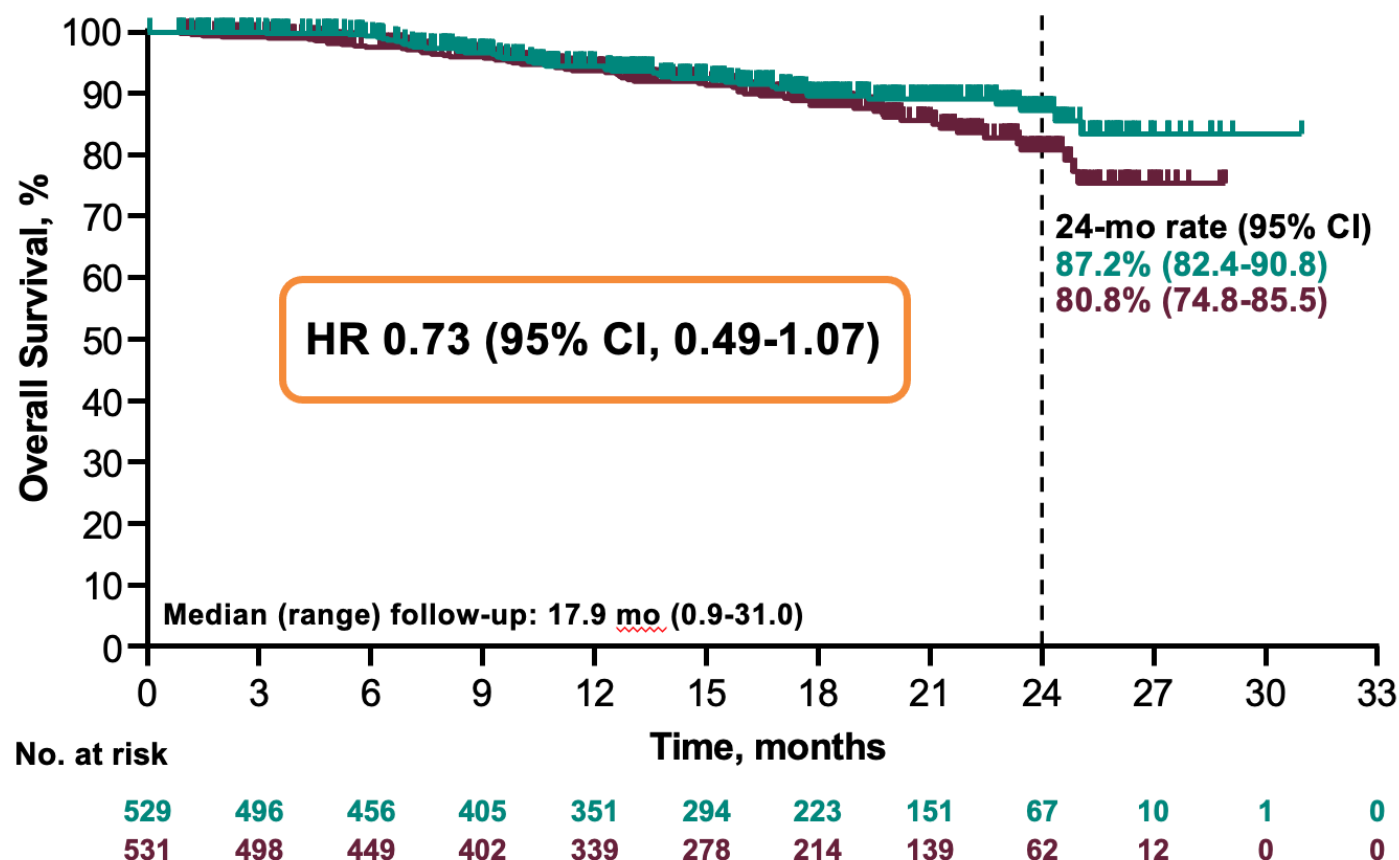
Primary Endpoint: Progression-Free Survival



	Pts w/ Event	Median, mo (95% CI)
<u>Pembro Arm</u>	21.7%	NR (NR-NR)
Placebo Arm	29.0%	NR (NR-NR)

Lorusso, ESMO 2023

Primary Endpoint: Overall Survival



	Pts w/ Event*	Median, mo (95% CI)
<u>Pembro Arm</u>	8.3%	NR (NR-NR)
<u>Placebo Arm</u>	11.1%	NR (NR-NR)

*42.9% information fraction^a

95% CI 0.49-1.07
BUT data not mature

KEYNOTE A18

January 12, 2024:
*FDA approves pembrolizumab
 plus chemoradiotherapy as
 treatment for patients with
 FIGO 2014 Stage III-IVA
 cervical cancer*

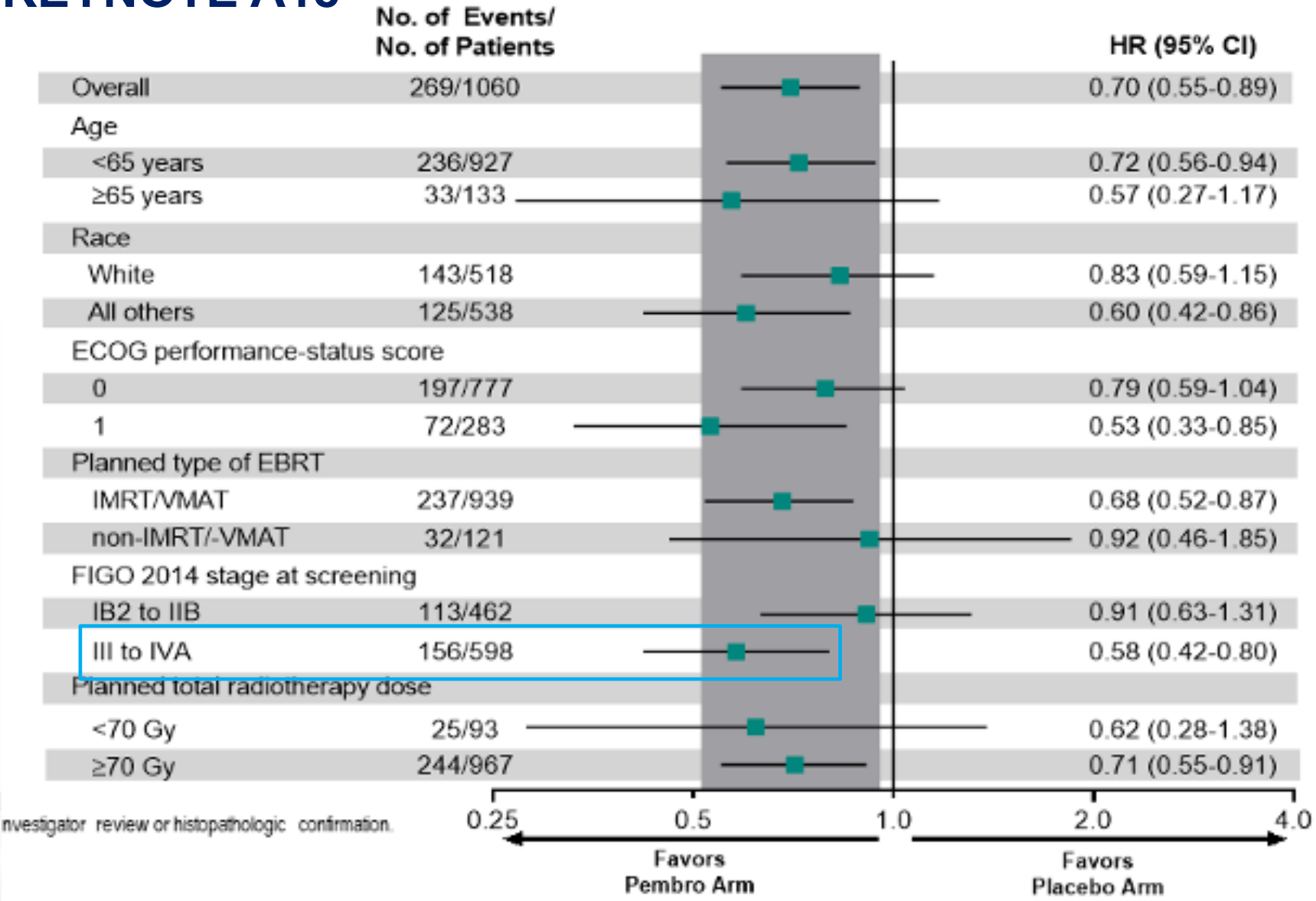
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KEYNOTE A18



“hypothesis-generating subgroup analyses of both studies (*CALLA* & *A18*) showed that **patients at the highest risk of progression or death as defined by disease stage derived a greater treatment benefit**”

Lorusso, 2024

(pembrolizumab) Plus Chemoradiotherapy (CRT) Significantly Improved Overall Survival (OS) Versus CRT Alone in Patients With Newly Diagnosed High-Risk Locally Advanced Cervical Cancer

March 15, 2024 6:45 am ET

CALLA - CHEMORADIATION +/- DURVALUMAB

Eligible population

- Women aged ≥ 18 years
- Histologically confirmed cervical adenocarcinoma, squamous carcinoma, or adenosquamous carcinoma
- High-risk LACC (FIGO 2009)
 - Stages IB2 to IIB, node positive ($N \geq 1$)
 - Stages IIIA to IVA with any node ($N \geq 0$)
- WHO ECOG performance status of 0 or 1

Stratification factors

- Disease stage
 - FIGO Stage IB2–IIB and LN+
 - FIGO Stage \geq III and LN–
 - FIGO Stage \geq III and LN+
- Region of world

N=770

R
1:1

**Durvalumab 1500 mg
q4w \times 24 doses**

Platinum + EBRT
+ brachytherapy

**Placebo
q4w \times 24 doses**

Platinum + EBRT
+ brachytherapy

Negative trial

-PD-L1 inhibitor

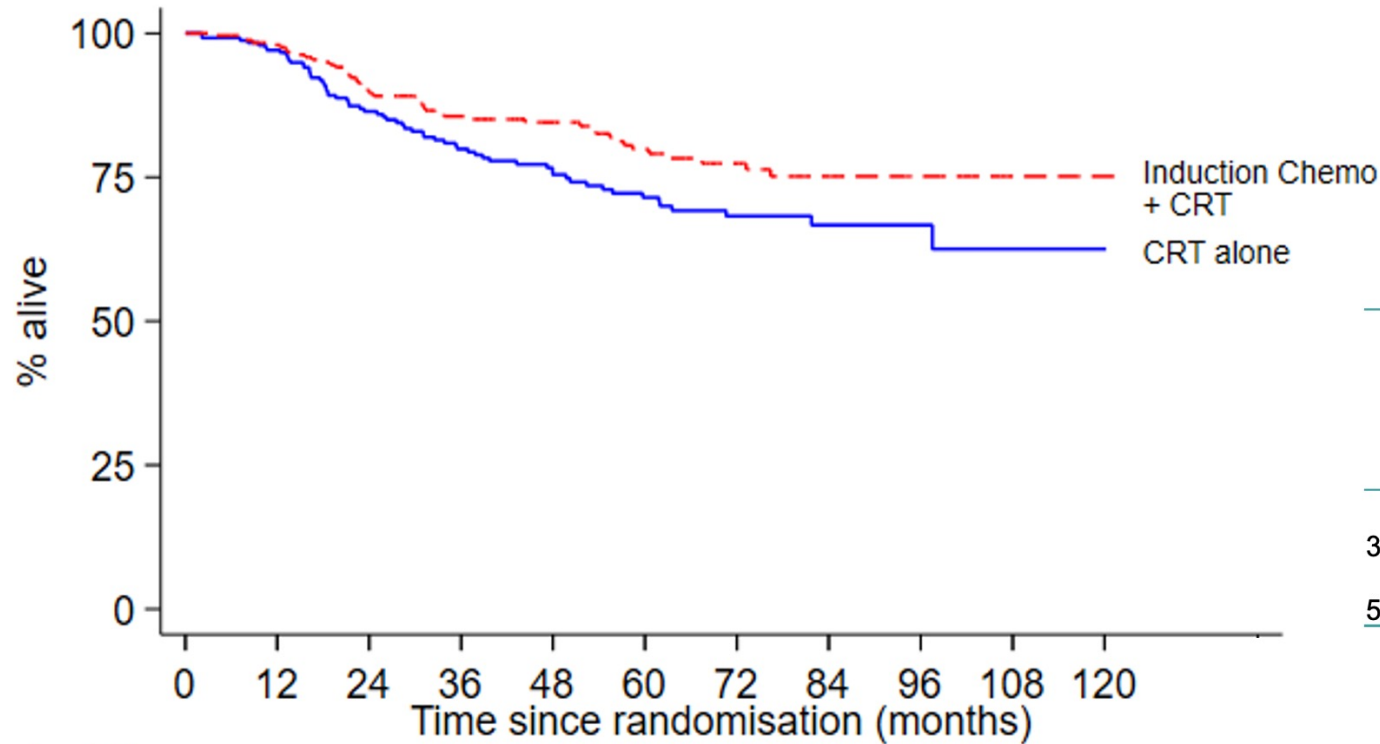
-Lower risk population (1 pelvic node)

-Different geographic distribution

-N=770

INTERLACE - CHEMORADIATION +/- NACT

INTERLACE Overall Survival (median FU 64m)



109 deaths
HR 0.61; 95% CI: 0.40-0.91
P=0.04

	Induction Chemo + CRT (n=250)	CRT alone (n=250)
3yr OS	86%	80%
5yr OS	80%	72%

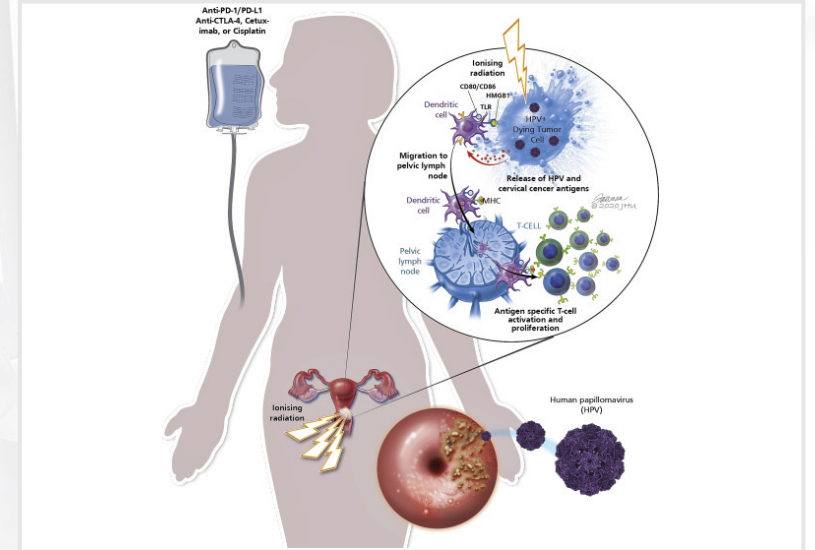
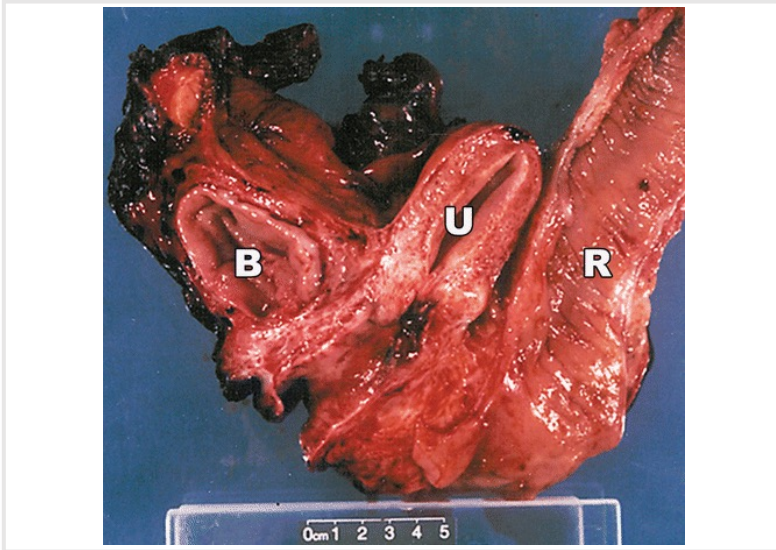
- **IB1 node+, IB2, II, IIIB, IVA (NO + PA nodes)**
- Improved OS with induction chemotherapy
- 500 patients **from 2012-2022**
- **Many did not get IMRT**
- Hasn't been published...

Number at risk											
CRT alone	250	228	181	154	124	99	67	39	16	5	1
Induction Chemo + CRT	250	236	195	168	146	111	75	42	19	8	1



McCormack M et al. *ESMO* 2023

SECOND LINE TREATMENT OPTIONS ARE LIMITED, MORBID, BIOMARKER DEPENDENT



Pelvic exenteration

- 5-8% postop mortality rate
- Up to 100% complication rate
- Up to 50% cure rate in carefully selected population

Tisotumab Vedotin

- ORR **24%** (95% CI: 16%, 33%)
- Median duration of response was 8.3 months
- Ocular toxicities

Keynote 826

- Pembrolizumab + carboplatin + taxol +/- bevacizumab
- Median OS 28.6 mos (CPS ≥ 1)

CONCLUSIONS

- Chemoradiation has been standard of care for **25 YEARS**
- Cervical cancer survival rates have not changed over this time
- pembrolizumab + chemoradiation improves overall survival
- Second line options are limited and can be morbid and toxic
 - (although now patients will not be IO-naïve...fewer options in second line?)
- May be most beneficial in patients with bulky disease - FDA approval
- Not all IO – CALLA trial
- Global implications – induction chemo may be more accessible