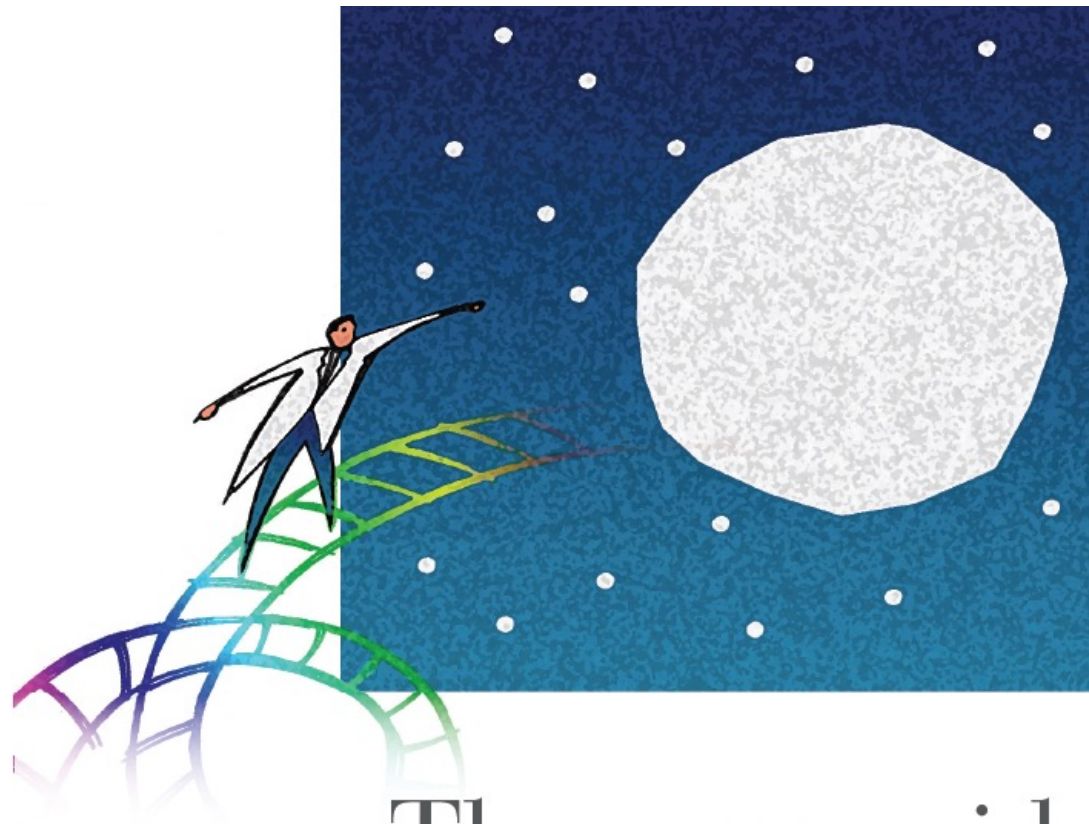


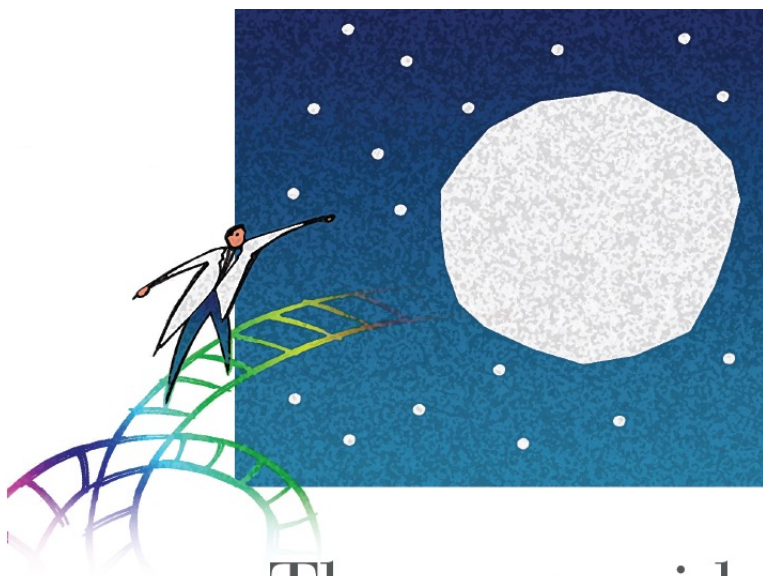
Terapia di prima linea nel paziente giovane con cHL

Elisa Lucchini
UCO Ematologia
Trieste



The young side of **LYMPHOMA**

gli under 40 a confronto



I have no disclosures

The young side of LYMPHOMA

gli under 40 a confronto

Caso clinico

Matteo, 27 anni, non fumatore, operaio in cantiere navale.

Gennaio 2023: riscontro di linfadenopatia ascellare sinistra.

Non sintomi B.

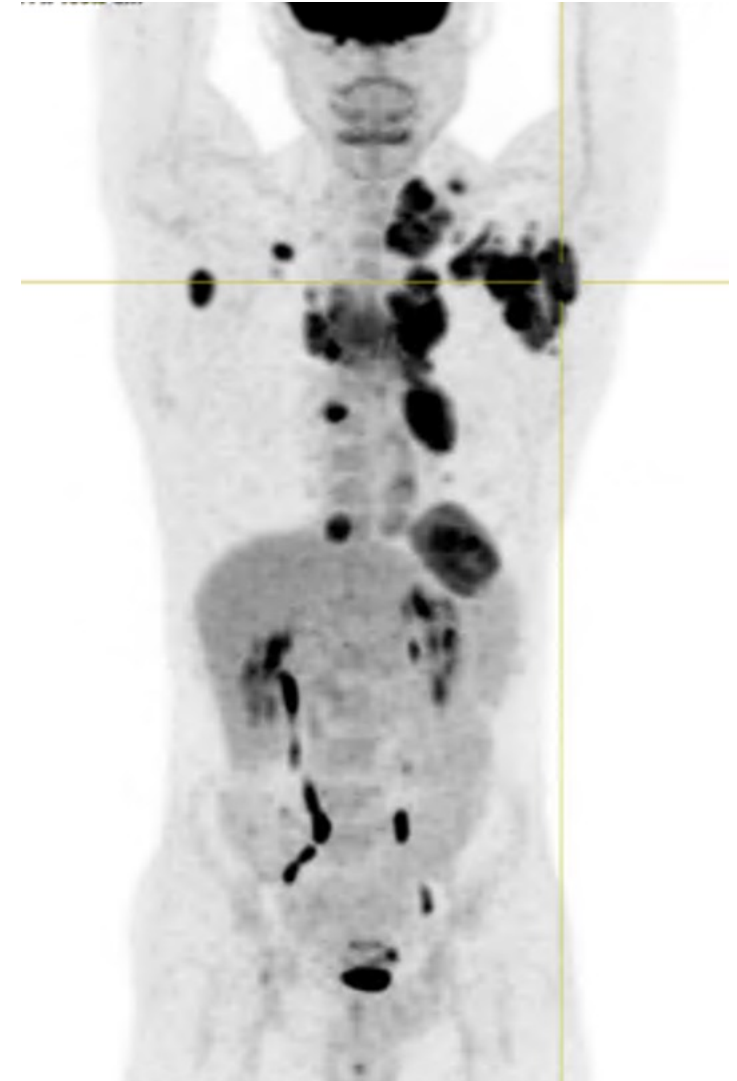
VES 25 mm/h (v.n. < 20 mm/h)

Istologico: linfoma di Hodgkin classico, sclerosi nodulare

PET/TC:

Voluminose linfadenopatie in sede sovraclaveare sinistra, retropettorale e ascellare bilaterale (SUVmax 10.1), al mediastino superiore e anteriore, alla catena mammaria interna bilaterale; voluminosa tumefazione tra angolo cardio-frenico e sfondato costo-diaframmatico di sinistra

Stadio II A early unfavorable (per n° aree nodali), IPS 2 (sesso maschile, linfopenia)



Quale terapia di prima linea (stadio IIA early unfavorable)?

- a) 4x ABVD + 30 Gy
- b) 6x A(B)VD
- c) 2x eBEACOPP + 2x ABVD
- d) Ne discuto con il radioterapista

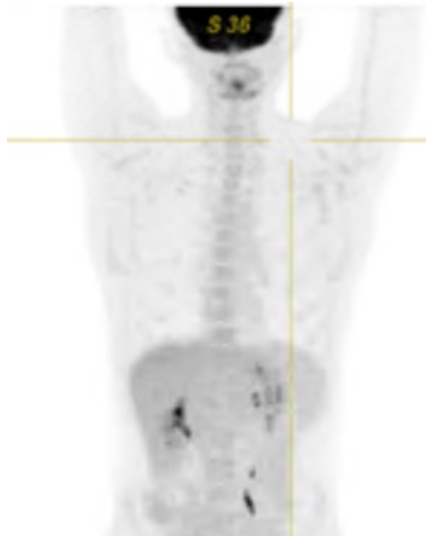
Caso clinico

→ Caso discusso con radioterapista: campi molto estesi, rischio di tossicità a breve e lungo termine

ABVD x2 cicli

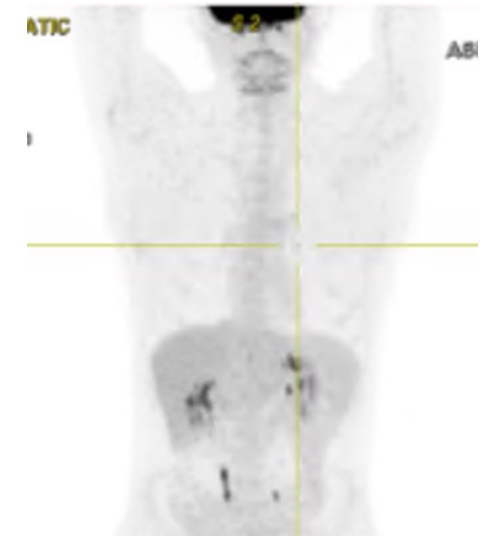


→ PET-2: DS 3



Residua captazione in sede
ascellare sinistra, con SUV inferiore
a quello epatico (3.1 vs 3.4)

→ AVD x 4 cicli: DS 2



Captazione in sede ascellare
sinistra, SUV inferiore a quello
mediastinico (2 vs 2.3)

Risk groups

EORTC

Risk factor/stage	IA/B	IIA	IIB	IIIA/B	IVA/B
None	Early Favorable			Advanced	
>3 nodal areas	Early Unfavorable				
↑ ESR					
Age ≥ 50					
Bulky mediastinal mass					

GHSB

Risk factor/stage	I A/B	IIA	IIB	III A/B	IV A/B
None	Favorable			Advanced	
>2 nodal areas	Unfavorable				
↑ ESR					
Extranodal disease					
Bulky mediastinal mass					

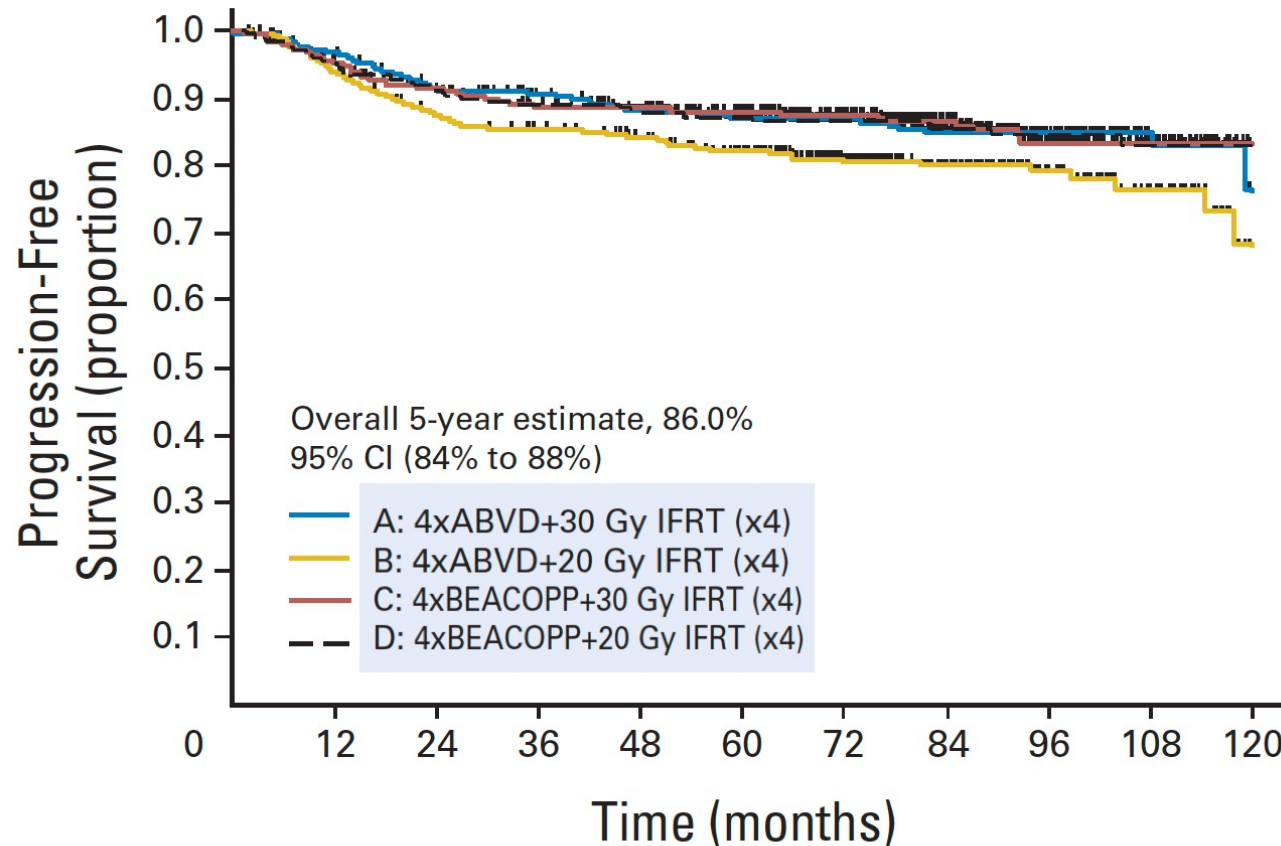
ESR > 50mm/h for asymptomatic patients, > 30 mm/h for patients with B-symptoms

Bulky mediastinal mass: at least one third of the maximum thorax diameter

EARLY UNFAVORABLE

HD11

1395 patients, early unf cHL



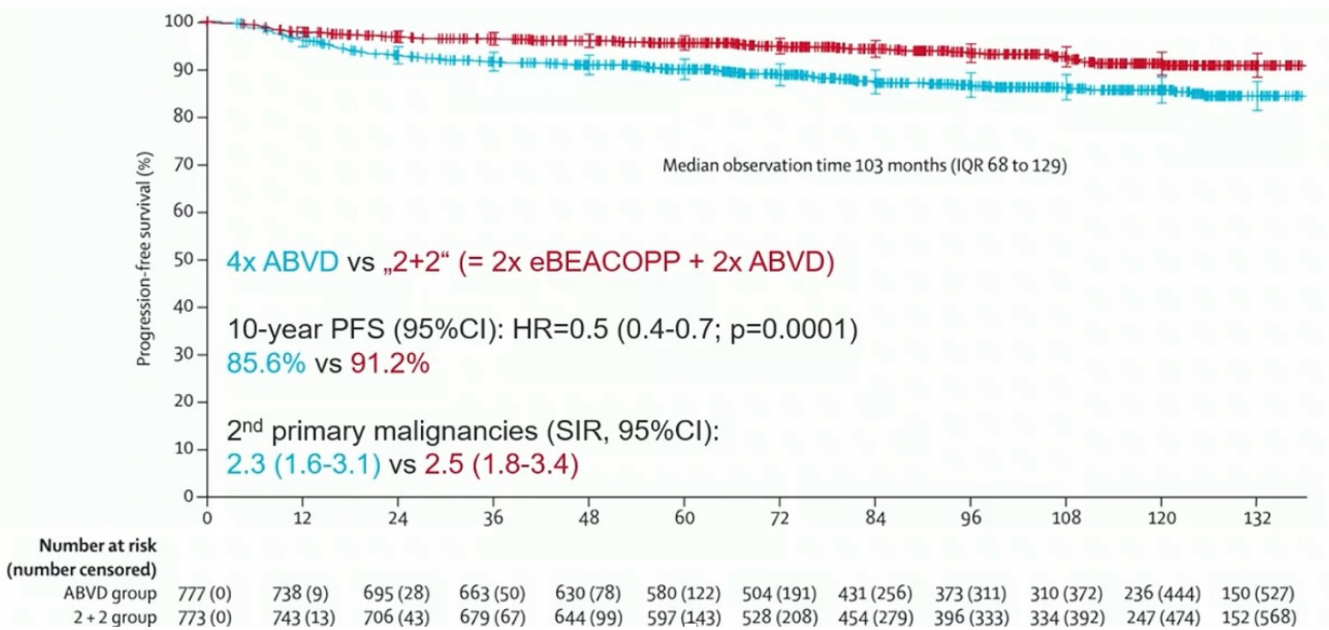
- No difference between BEACOPP and ABVD when followed by 30 Gy of IFRT
- Inferiority of ABDV + 20 Gy IFRT
- Treatment-related toxicity more frequent in BEACOPP arms

«BEACOPP did not significantly improve outcome in early unfavorable cHL»

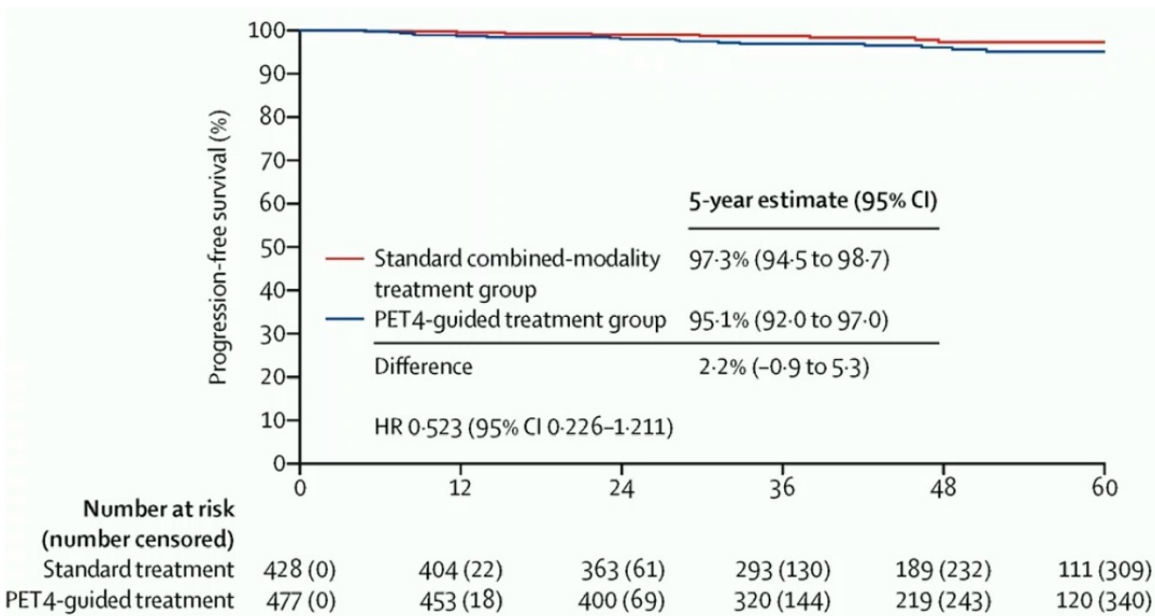
«Four cycles of ABVD should be followed by 30 Gy IFRT»

EARLY UNFAVORABLE

HD14: no differences in OS

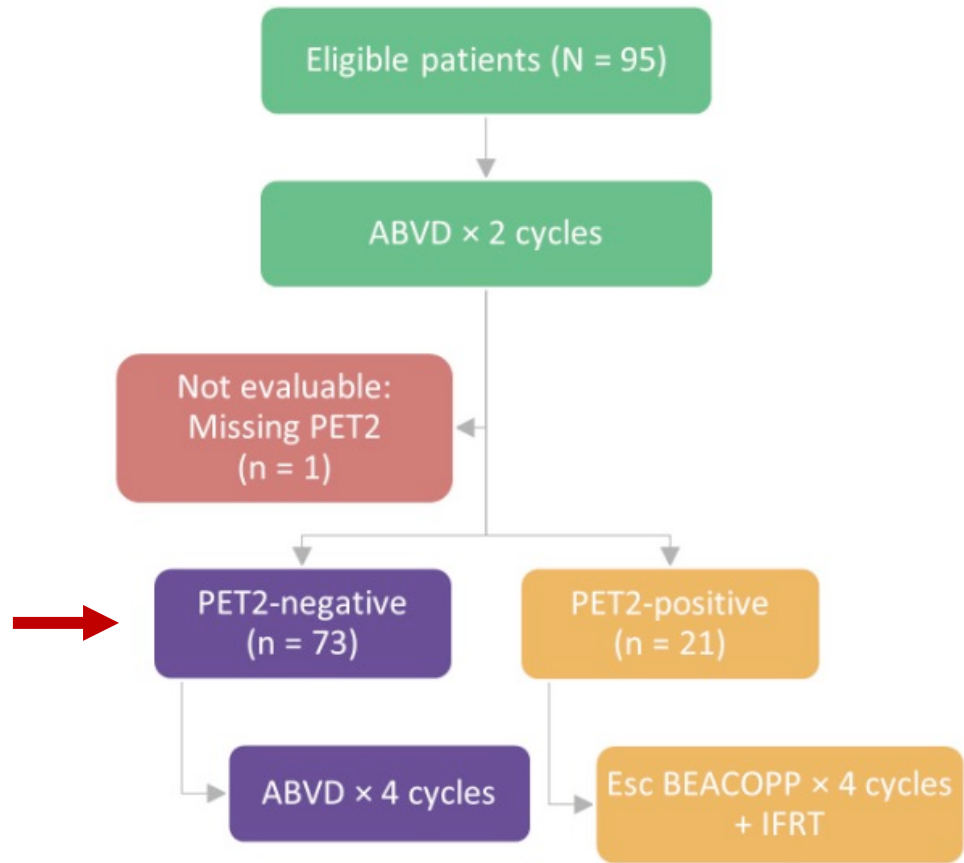


HD17: omission of RT if
PET_{neg} after «2+2»



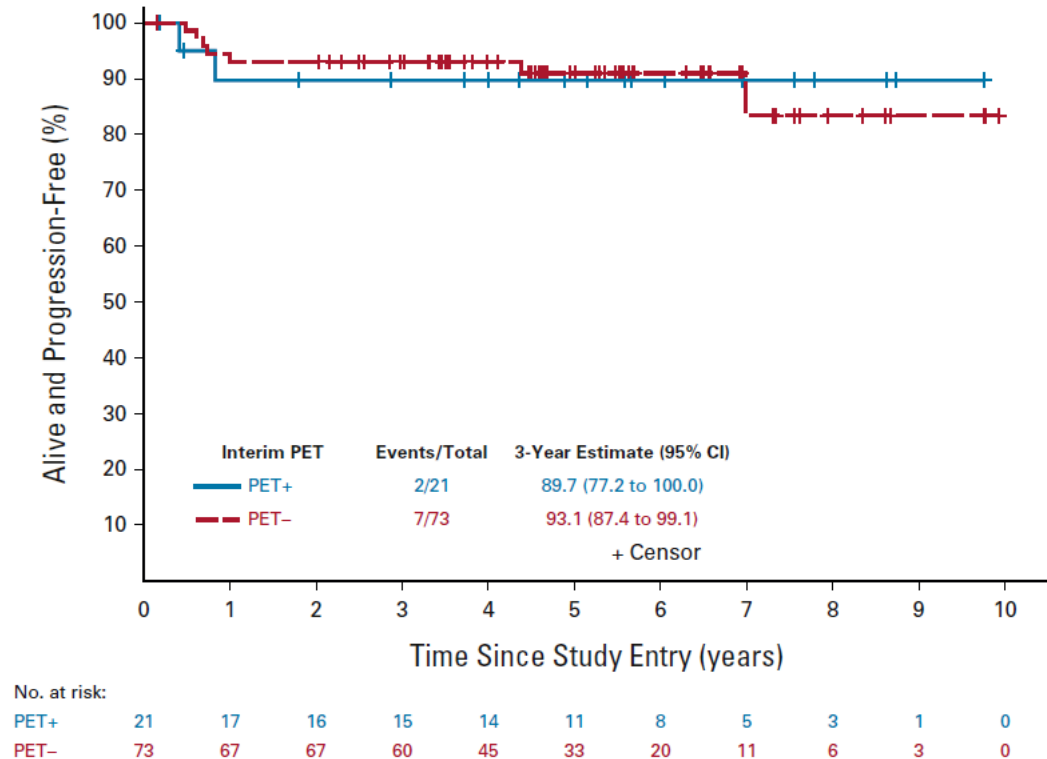
EARLY UNFAVORABLE

CALGB 50801trial Alliance



94 patients with bulky disease

→ Sparing radiotherapy in PET-negative patients



Stage I-II cHL^a

Early-stage favourable disease, no risk factors^b

Early-stage unfavourable disease,^c ≥ 1 risk factor^b

2 cycles ABVD [I, A]

ISRT 20 Gy [I, A]

Early fav

≤ 60 years

> 60 years

2 cycles eBEACOPP [I, A]

2 cycles ABVD [I, A]

iPET [I, A]

DS 1-3

Follow-up [I, A]

4 cycles ABVD [I, A]

ISRT 30 Gy [I, A]

Early unfav

DS 4-5

ISRT 30 Gy [I, A]

Early fav

RACCOMANDAZIONE 1: stadi iniziali favorevoli con PET negativa dopo 2 ABVD

Nei pazienti con linfoma di Hodgkin in stadio iniziale favorevole, con PET negativa dopo 2 cicli ABVD, il panel raccomanda un consolidamento con radioterapia (*raccomandazione forte basata su un'alta certezza delle evidenze*)

NOTE: si raccomanda un consolidamento radioterapico “involved site” con una dose tra 20 e 30 Gy e frazionamento convenzionale

Early unfav

RACCOMANDAZIONE 2: stadi iniziali sfavorevoli con PET negativa dopo 2 ABVD

Nei pazienti con linfoma di Hodgkin in stadio precoce sfavorevole, con PET negativa dopo 2 cicli ABVD, il panel suggerisce un trattamento con ulteriori 2 cicli ABVD seguiti da radioterapia rispetto ad altri 4 cicli ABVD senza radioterapia (*raccomandazione condizionata basata su una certezza delle evidenze moderata*).

NOTE: si raccomanda un consolidamento radioterapico “involved site” con una dose di 30 Gy e frazionamento convenzionale

Caso clinico

Giulia, 24 anni, asma cronico in terapia al bisogno, ovaio policistico.

Gennaio 2022: accesso in PS per tachicardia e febbre serotina.

TC torace: massa bulky mediastinica (11x12 cm), interessamento del polmone a sinistra e multiple linfadenopatie mediastiniche.

VES 120 mm/h; PCR 125 mg/L; piastrine 638.000/mmc, leucociti 9.420/mmc, neutrofili 8.790/mmc, linfociti 560/mmc.

PET/TC: positiva a livello della nota massa mediastinica, che si estende al polmone di sinistra (SUV 10.4), con interessamento dei settori basali del lobo superiore, lingula e settori apicali del lobo inferiore; linfadenopatie in sede mediastinica, para-tracheale, para-esofagea, sfondato costo-diaframmatico a sinistra.

Biopsia massa mediastinica: linfoma di Hodgkin classico, sclerosi nodulare

Stadio IVB, GHSG avanzato, IPS 3 (stadio, ipoalbuminemia, linfopenia)



Quale terapia di prima linea (stadio IVB GHSg advanced)?

a) A(B)VD

b) BV-AVD

c) eBEACOPP

d) Vorrei poter utilizzare uno schema «nuovo» tipo BrECADD o Nivo-AVD

Caso clinico

Sofia, 24 anni **cHL sclerosi nodulare, stadio IVB, GHSG avanzato, IPS 2 (stadio, ipoalbuminemia)**

BV-AVD x2 cicli

→ PET-2: DS 4

→ BV-AVD x 4 cicli: DS 3

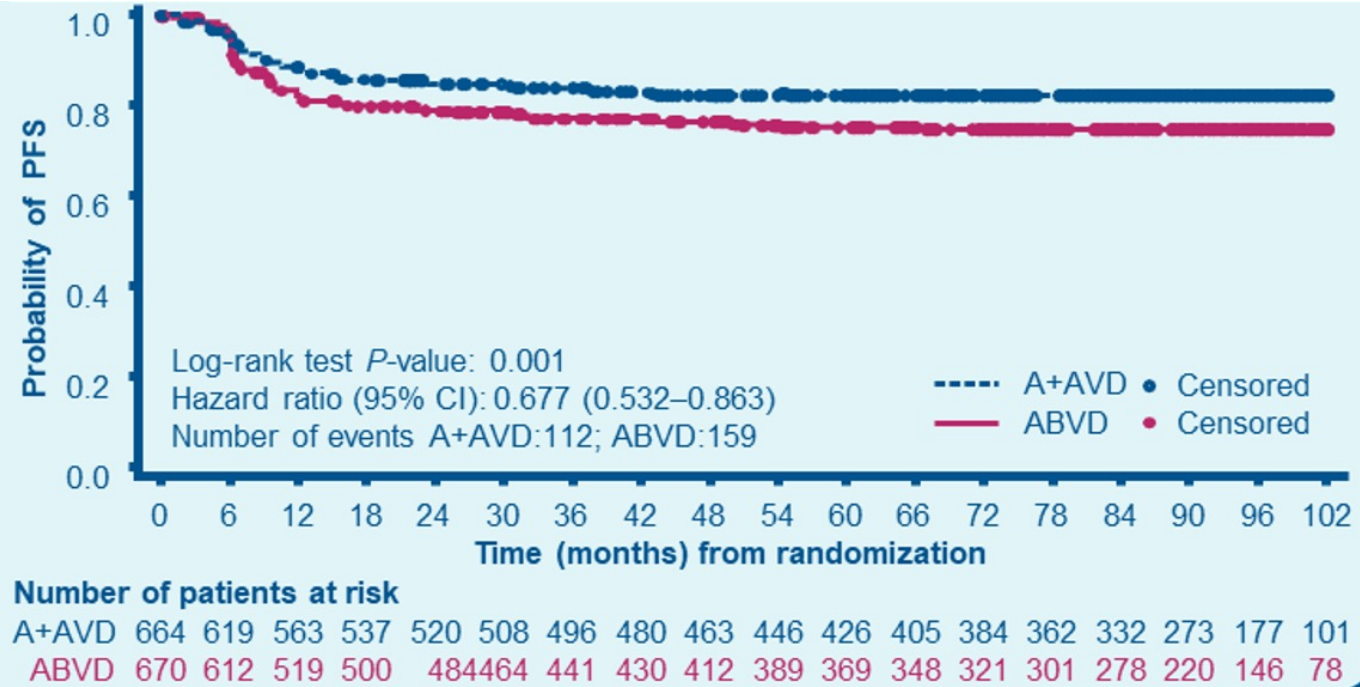


Tessuto in sede mediastinica anteriore con gradiente metabolico superiore a quello epatico (SUV 3.4 vs 3.1)

Tessuto in sede mediastinica anteriore con gradiente metabolico inferiore a quello epatico (SUV 2.9 vs 3.2)

ADVANCED ECHELON-1

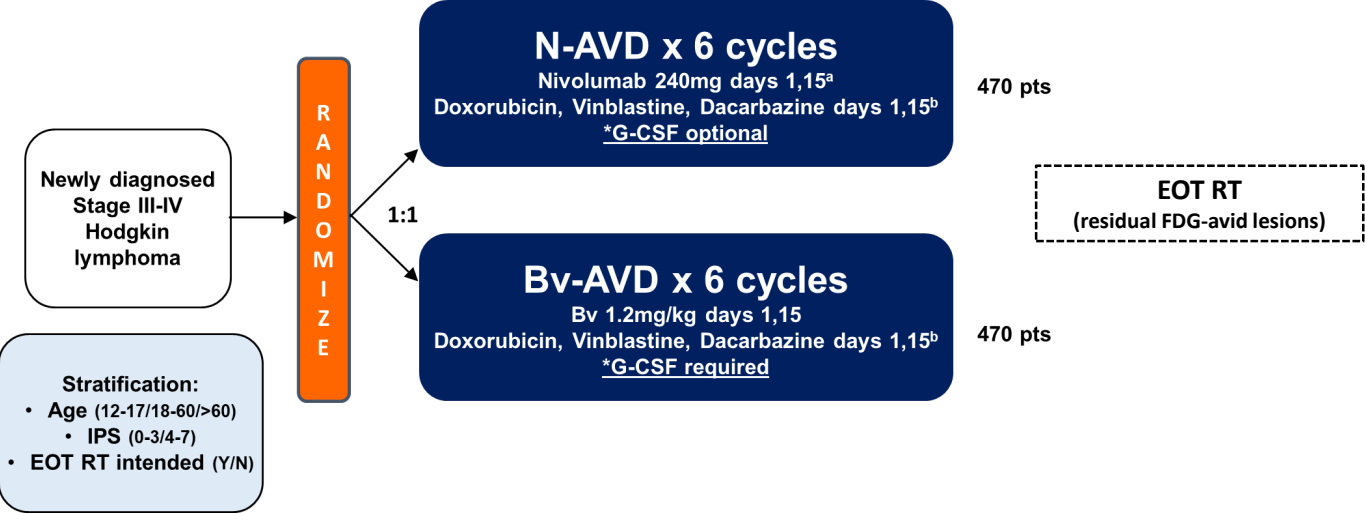
7-years probability of PFS



OS rate: BV+AVD 93.5% vs ABVD 88.8%;
HR 0.617 (95% CI: 0.423–0.899); $P=0.011$

Subgroup	A+AVD no. of deaths/total no. of patients (%)	ABVD no. of deaths/total no. of patients (%)	Hazard Ratio for Death (95% CI)	
Overall	39/664 (5.9)	64/670 (9.6)	0.59	(0.40–0.88)
Age				
<60 yr	19/580 (3.3)	35/568 (6.2)	0.51	(0.29–0.89)
≥60 yr	20/84 (24)	29/102 (28.4)	0.83	(0.47–1.47)
<45 yr	9/451 (2.0)	18/423 (4.3)	0.44	(0.20–0.99)
≥45 yr	30/213 (14.1)	46/247 (18.6)	0.75	(0.47–1.18)
Geographic region				
Americas	11/261 (4.2)	27/262 (10.3)	0.40	(0.20–0.80)
North America	9/250 (3.6)	26/247 (10.5)	0.33	(0.15–0.70)
Europe	26/333 (7.8)	32/336 (9.5)	0.78	(0.47–1.32)
Asia	2/70 (3)	5/72 (7)	0.37	(0.07–1.91)
No. of IPS risk factors				
0 or 1	7/142 (4.9)	7/141 (5.0)	0.97	(0.34–2.77)
2 or 3	17/355 (4.8)	26/357 (7.3)	0.62	(0.33–1.14)
4–7	15/167 (9.0)	31/172 (18.0)	0.48	(0.26–0.88)
Cancer stage at baseline				
III	17/237 (7.2)	20/246 (8.1)	0.86	(0.45–1.65)
IV	22/425 (5.2)	43/421 (10.2)	0.48	(0.29–0.80)
B symptoms at baseline				
Present	30/400 (7.5)	39/381 (10.2)	0.71	(0.44–1.14)
Absent	9/264 (3.4)	25/289 (8.7)	0.37	(0.17–0.80)
Extranodal site at baseline				
0	22/217 (10.1)	19/228 (8.3)	1.18	(0.64–2.19)
1	9/217 (4.1)	17/223 (7.6)	0.51	(0.23–1.14)
>1	8/194 (4.1)	25/193 (13.0)	0.30	(0.14–0.67)
ECOG performance-status score at baseline				
0	15/376 (4.0)	21/378 (5.6)	0.70	(0.36–1.37)
1	19/260 (7.3)	34/263 (12.9)	0.54	(0.31–0.94)
2	5/28 (18)	9/27 (33)	0.41	(0.14–1.23)
Sex				
Male	19/378 (5.0)	45/398 (11.3)	0.43	(0.25–0.73)
Female	20/286 (7.0)	19/272 (7.0)	0.96	(0.51–1.80)

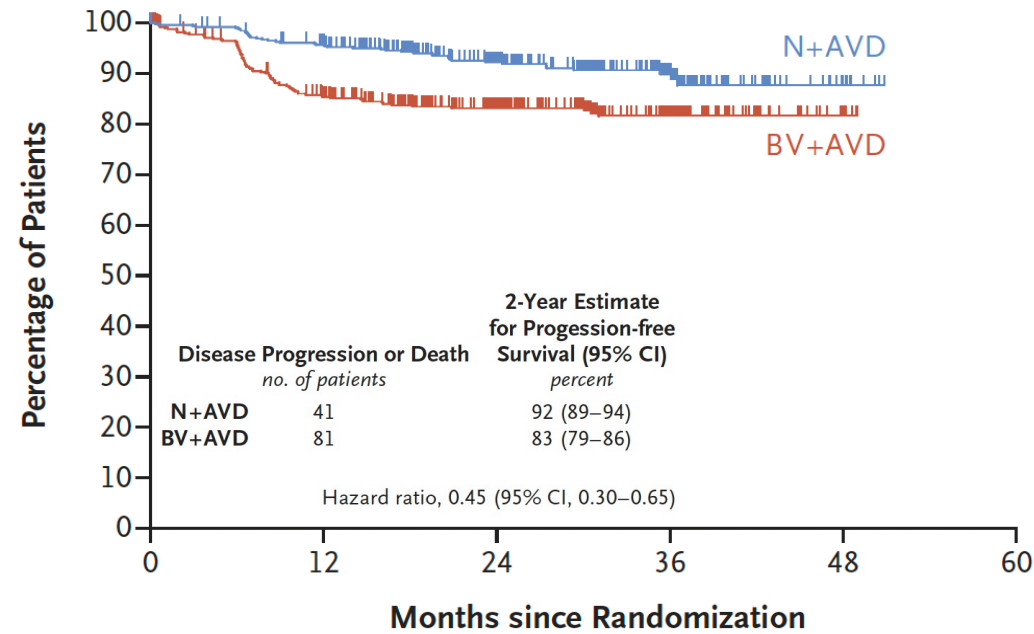
ADVANCED SWOG S1826



Characteristic	N+AVD (N = 487)	BV+AVD (N = 483)
Age		
Median (range) — yr	27.6 (12.0–83.7)	26.8 (12.0–81.7)
Distribution — no. (%)		
12–17 yr	118 (24)	118 (24)
18–60 yr	321 (66)	318 (66)
>60 yr	48 (10)	47 (10)
Female sex — no. (%)	216 (44)	210 (43)
Race or ethnic group — no. (%)†		
White	372 (76)	361 (75)
Black	58 (12)	56 (12)
Asian	11 (2)	17 (4)
Other or unknown	46 (9)	49 (10)
Hispanic	66 (14)	58 (12)
Disease stage — no. (%)		
III	185 (38)	168 (35)
IV	302 (62)	315 (65)
B symptoms present — no. (%)‡	288 (59)	273 (57)
IPS — no. (%)§		
0–3	332 (68)	328 (68)
4–7	155 (32)	155 (32)
Bulky disease — no. (%)¶	156 (32)	127 (26)
HIV-positive status — no. (%)	11 (2)	5 (1)

ADVANCED SWOG S1826

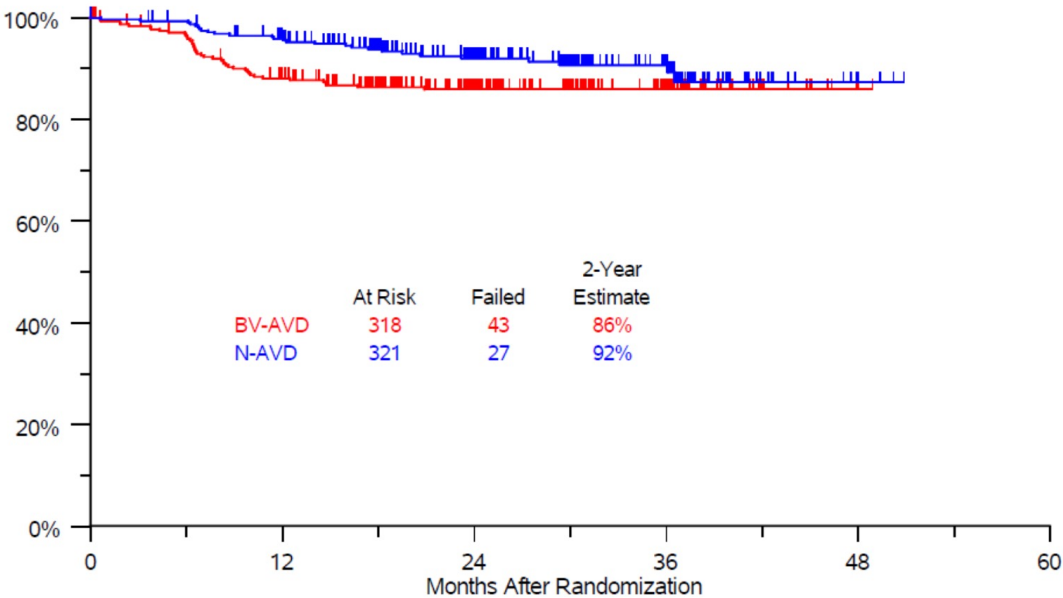
Higher PFS with Nivo-AVD
No differences in overall survival



No. at Risk

N+AVD	487	450	281	101	9	0
BV+AVD	483	392	244	97	7	0

PFS in patients aged 18-60 yrs



PFS benefit across all subgroups: Age, IPS, Stage, B-symptoms

From BEACOPP to BrECADD

Drug	Day	BEACOPP ¹ Dose (mg/m ²)	BrECADD Dose (mg/m ²)
Bleomycin	8	10	-
Etoposide	1-3	200	150
Doxorubicin	1	35	40
Cyclophosphamide			
Vincristine			
Brentuximab			
Procarbazine			
Prednisone			
Dacarbazine			
Dexamethasone	1-4	-	40

Co-primary objectives:

- Demonstrate **superior tolerability** defined by treatment-related morbidity (TRMB) with BrECADD.
- Demonstrate **non-inferior efficacy** of 4-6 x BrECADD compared with 4-6 x BEACOPP determined by PFS (NI margin 6%, HR to be excluded 1.69)

Newly diagnosed cHL, advanced stages*, 18-60 y
randomisation

2 x eBEACOPP

2 x BrECADD

eBEACOPP

eBEACOPP

BrECADD

BrECADD

EOT PET-positive RD consolidative radiotherapy,
PET-negative FU

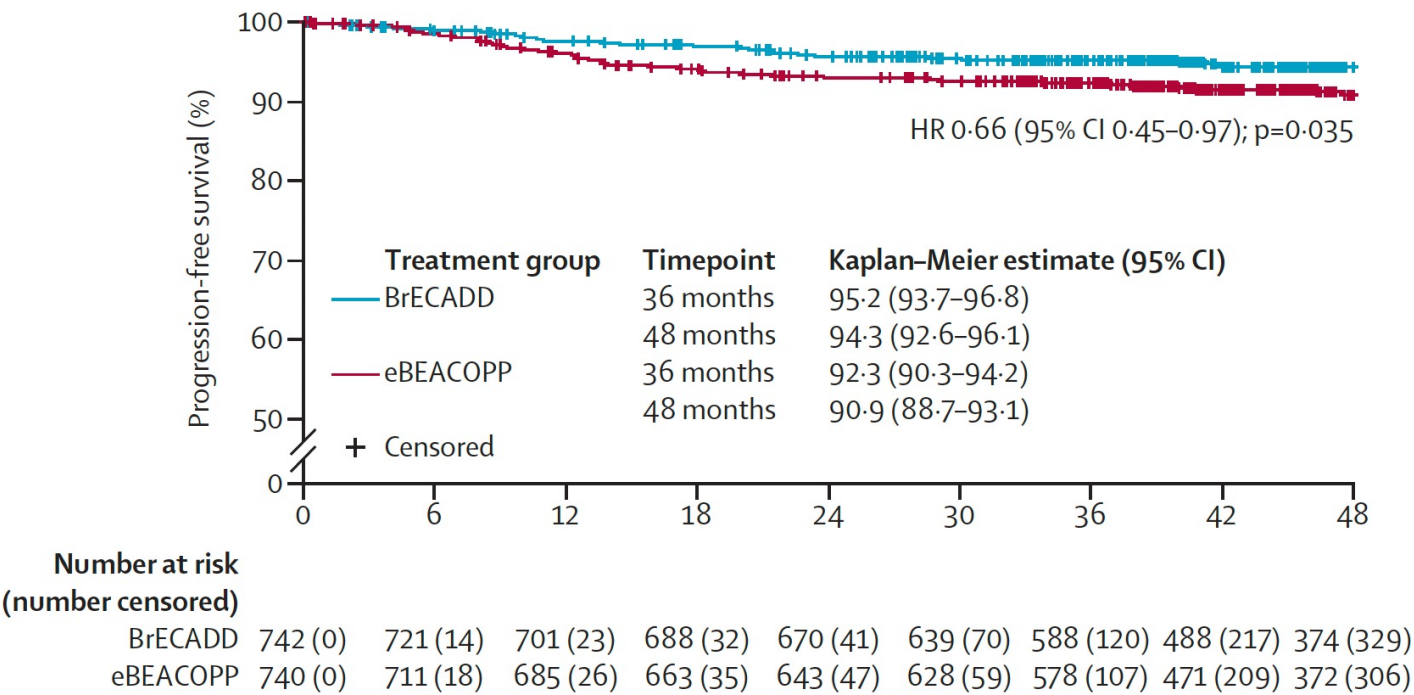
* Includes stage IIB with RF LMM or ED, and stage II and IV

- Introducing **Brentuximab vedotin**, omitting **Bleomycin** (pulmonary toxicity) and **Vincristin** (neuropathy)
- Replacing **Procarbazine** with less geno-/gonadotoxic **Dacarbazine**
- Replacing 14 days of **Prednisone** to 4 days of **Dexamethasone**

PFS

4-year-estimated

- BrECADD 94.3% (92.6-96.1)
- eBEACOPP 90.9% (88.7-93.1)



Higher relative dose intensity and patients able to receive full dose level



Δ 20%

2025 Guidelines



National
Comprehensive
Cancer
Network®

NCCN Guidelines Version 2.2025 Hodgkin Lymphoma (Age 18–60 years)

CLINICAL PRESENTATION:
Classic Hodgkin Lymphoma: Stage III–IV
PRIMARY TREATMENT^a

Preferred regimens:

Nivolumab-AVD^{r,y,z} (category 1)
or
BrECADD + G-CSF^r (category 1) (for
ages 18-61 y)

Useful in Certain Circumstances

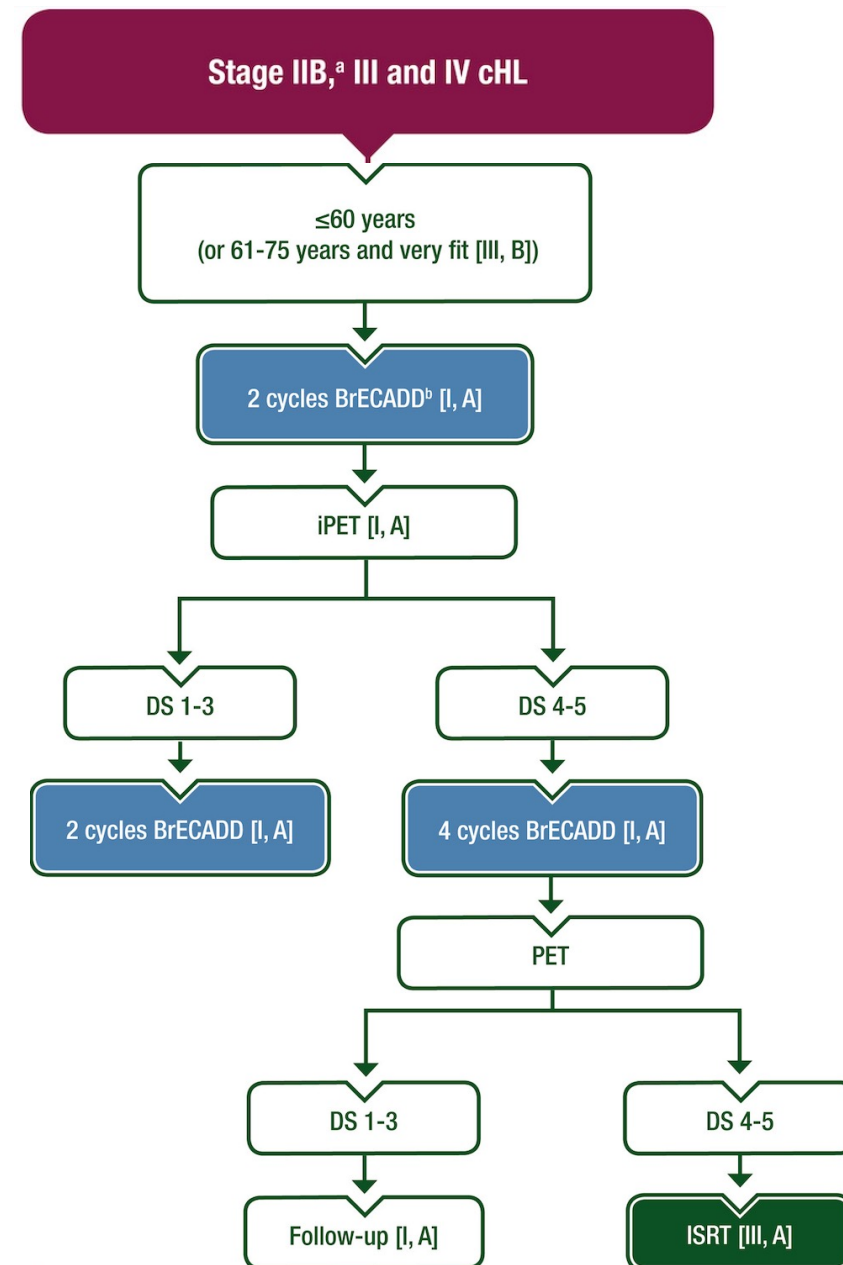
BV-AVD + G-CSF^r (category 1)
(if not a candidate for CPI; contraindicated in those with neuropathy)

or
ABVD^{h,y} x 2 cycles^r
(category 1) (if BV
and CPI not available
or contraindicated)

Restage
with
FDG-PET/
CT^{c,aa}

Deauville
1–3^s → AVD x 4 cycles^{bb}
(adapted from RATHL)⁵

Deauville
4–5^{s,v} → BrECADD +
G-CSF^{r,x}
x 3 cycles → Restage
with
FDG-
PET/CT^c





RACCOMANDAZIONE 5: BV-AVD vs ABVD negli stadi avanzati

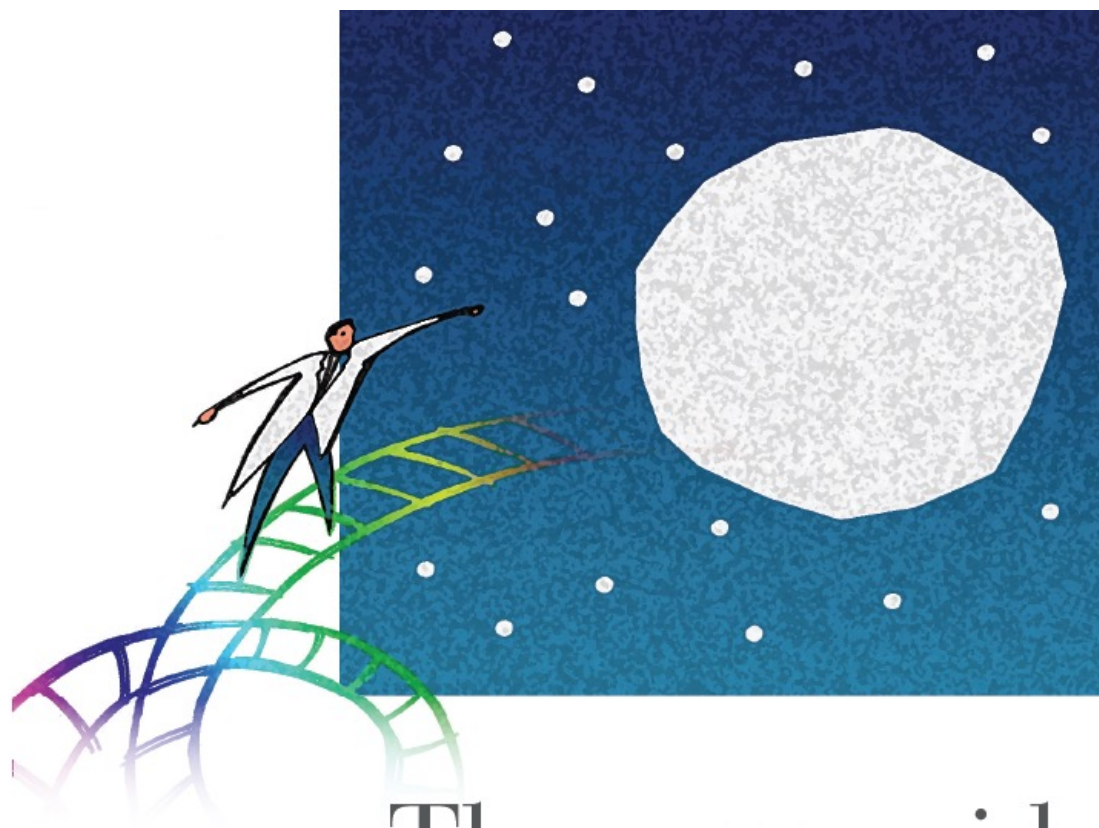
Nei pazienti con linfoma di Hodgkin in stadio avanzato il panel suggerisce un trattamento con 6 cicli Brentuximab-AVD piuttosto che 6 cicli ABVD (*raccomandazione condizionata basata su una moderata certezza delle evidenze*).[#]

Nei pazienti con linfoma di Hodgkin in stadio IV secondo Ann Arbor e con controindicazione a bleomicina il panel raccomanda un trattamento con 6 cicli Brentuximab-AVD piuttosto che 6 cicli ABVD (*raccomandazione forte basata su una moderata certezza delle evidenze*).[§]

INDICAZIONE DI BUONA PRATICA CLINICA

Altre strategie di trattamento non PET-adapted negli stadi avanzati

In considerazione degli studi in corso (Nivo-AVD, BrECADD, ABVD-DD-DI) l'atteggiamento terapeutico dei pazienti in 1° linea in stadio avanzato potrebbe essere modificato a breve.



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gli under 40 a confronto