



UNIKLINIK
KÖLN

ERIC
european research initiative on CLL

DEUTSCHE
STUDIENGRUPPE

Chemoimmuntherapy in the R/R setting: Still useful?

Amsterdam

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Conflicts of interests

1. Advisory Boards

Janssen, Gilead, Roche, Abbvie, Novartis, Celgene,
AstraZeneca

2. Honoraria

Roche, Novartis, Gilead, Janssen, Abbvie, Celgene

3. Research support

Roche, Janssen, Abbvie, Gilead, Beigene

EMA-approved treatment options in RR CLL

FCR

BR

CLB + R

Ab alone

Ibrutinib

Idelalisib +
R

BR + kinase
inhibitor

Venetoclax
+/- R

Allogeneic
SCTX

Relevant factors for treatment decision in RR setting

- Prior remission duration
- Prior tolerance of treatment
- Genetic aberrations:
 - TP53 del/mut
 - Complex karyotype
- Comorbidities/Comedication

EMA-approved treatment options in RR CLL

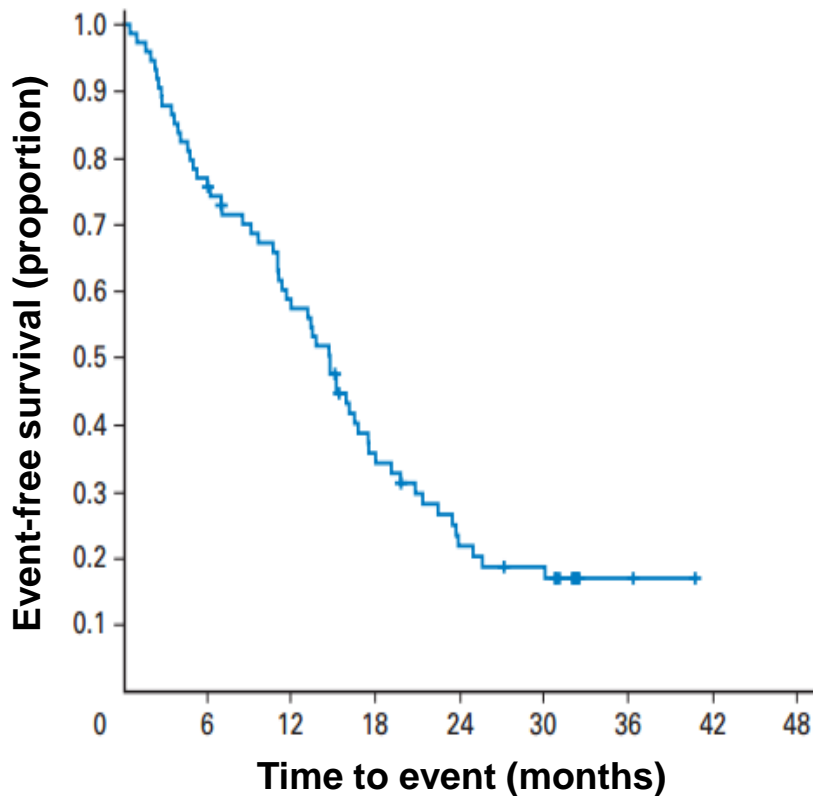
| FCR | BR | CLB + R |
|-----------------------|------------------|-----------------|
| Ab alone | Ibrutinib | Idelalisib + R |
| BR + kinase inhibitor | Venetoclax +/- R | Allogeneic SCTX |

Efficacy of chemoimmunotherapies in R/R CLL

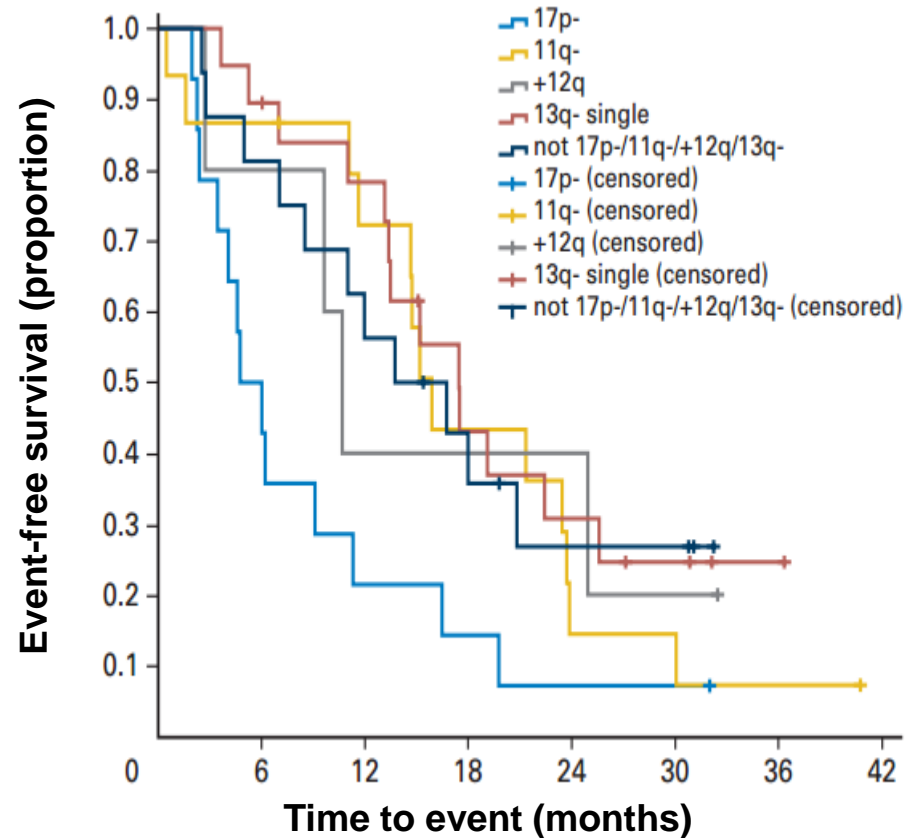
| | FCR Wierda et al., JCO 2005 | FCR Robak et al., JCO 2010 | BR Fischer et al., JCO 2011 | BR Michallet et al., Haematol. 2018 | CLB+R Michallet et al., Haematol. 2018 |
|---------------------------|--|---|--|---|--|
| n pts | 177 | 276 | 78 | 57 | 59 |
| ORR | 73% | 70% | 59% | 54% | 53% |
| CR | 25% | 24% | 9% | 16% | 2% |
| uMRD ITT | n.e. | 13% | 2% | 16% | 13% |
| PFS (med. mo.) | 28 | 30.6 | 14.7* | 26.0 | 16.0 |
| OS | 42 | NR | 33.9 | NR | 40.3 |

Bendamustine + rituximab in RR CLL (CLL2M, Phase 2): poor prognosis for del(17p)

Event-free survival



Event-free survival



Severe Toxicity of chemoimmunotherapies in R/R CLL

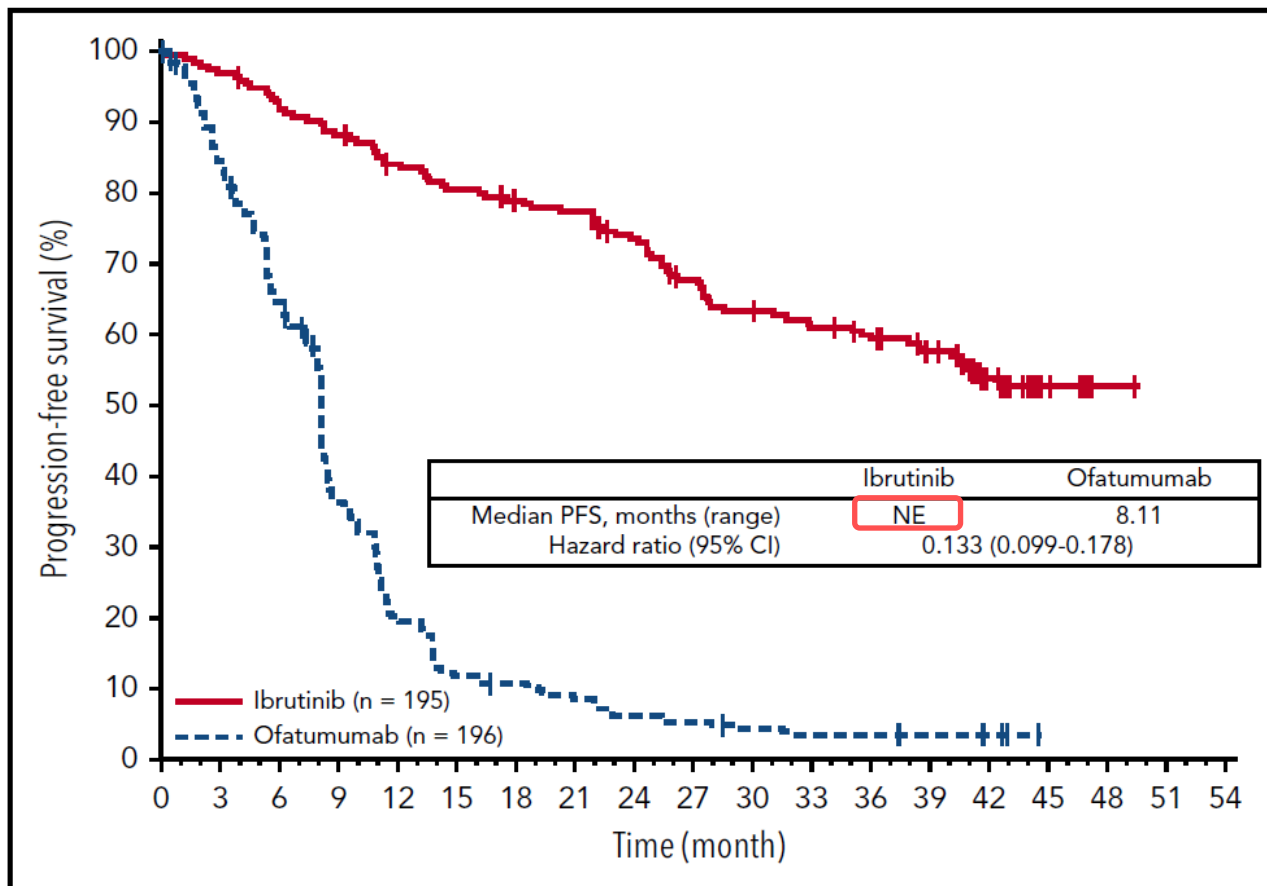
| | FCR Wierda et al., JCO 2005 | FCR Robak et al., JCO 2010 | BR Fischer et al., JCO 2011 |
|--------------|--|---|--|
| n patients | 177 | 276 | 78 |
| Neutropenia | 81% | 42% | 23% |
| Thrombopenia | 34% | 11% | 28% |
| Anemia | 24% | 12% | 17% |
| Infections | 16% | 17% | 13% |

EMA-approved treatment options in RR CLL

| | | |
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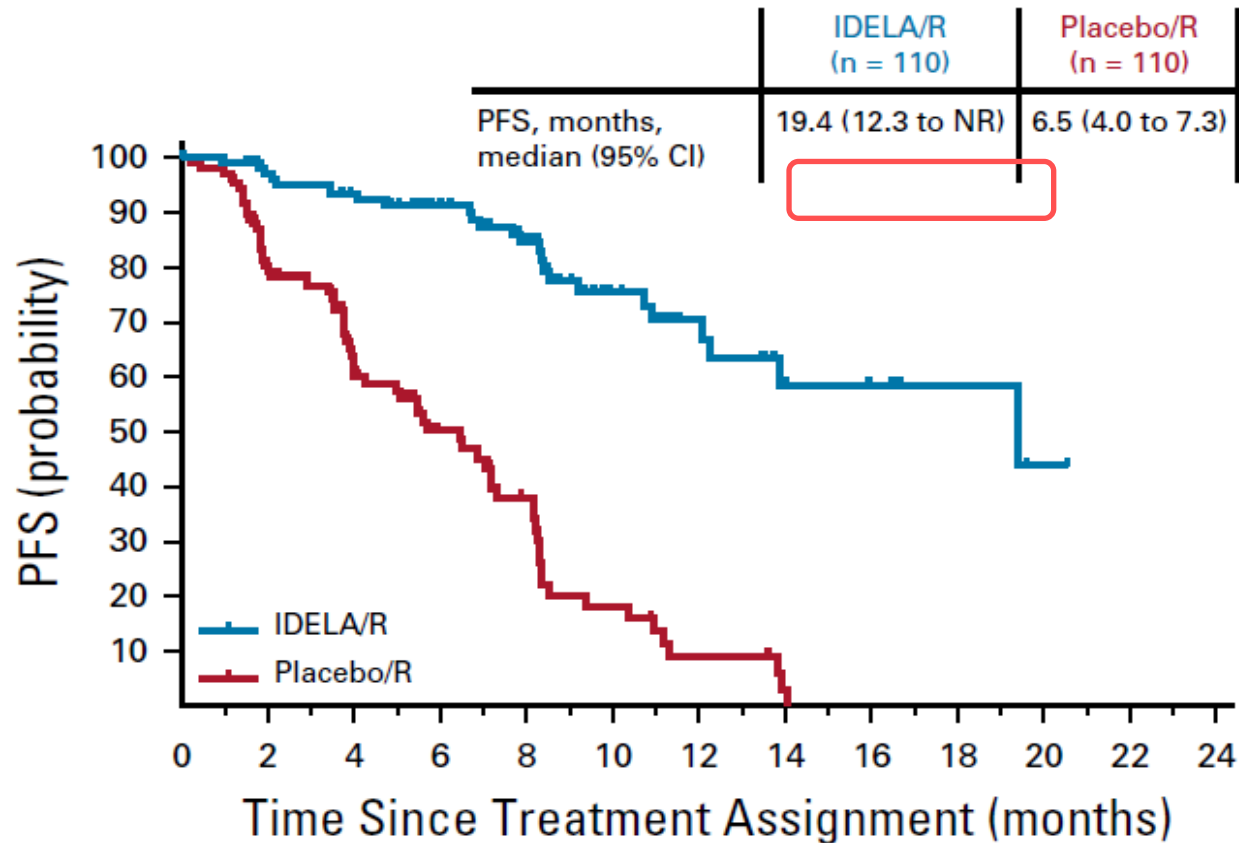
Phase III RESONATE I trial: PFS Ibrutinib vs Ofatumumab

RESONATE 1-Study: N = 391 – FU 44 months



Phase III Study in elderly patients with R/R CLL: Idelalisib + R vs Placebo + R

PFS for 220 patients after longterm FU

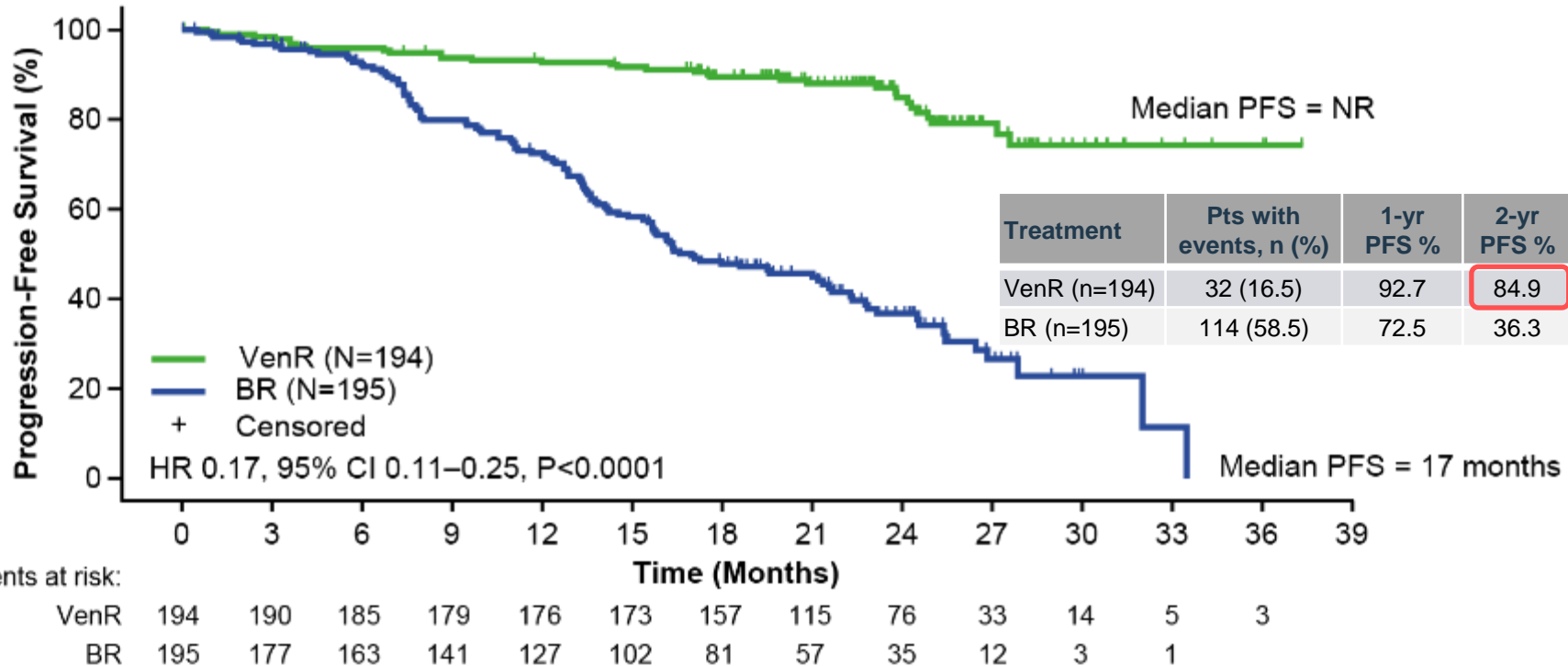


No. at risk (No. of events)

| | | | | | | | | | | | | |
|-----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| IDELA/R | 110 (0) | 101 (3) | 93 (7) | 73 (9) | 59 (14) | 31 (19) | 20 (21) | 9 (24) | 7 (24) | 4 (24) | 1 (25) | 0 (25) |
| Placebo/R | 110 (0) | 84 (21) | 48 (38) | 29 (46) | 20 (53) | 9 (63) | 4 (67) | 1 (69) | 0 (70) | 0 (70) | 0 (70) | 0 (70) |

Sharman J et al. JCO 2019

MURANO-trial: Bcl2-Inhibitor Venetoclax+R for 24 months vs BR



Seymour J et al. NEJM 2018

- Median (range) duration of follow-up, 23.8 (0.0–37.4) months:
- Venetoclax + rituximab, 24.8 months; bendamustine + rituximab, 22.1 months

Chemoimmunotherapy in the R/R setting: Still useful?

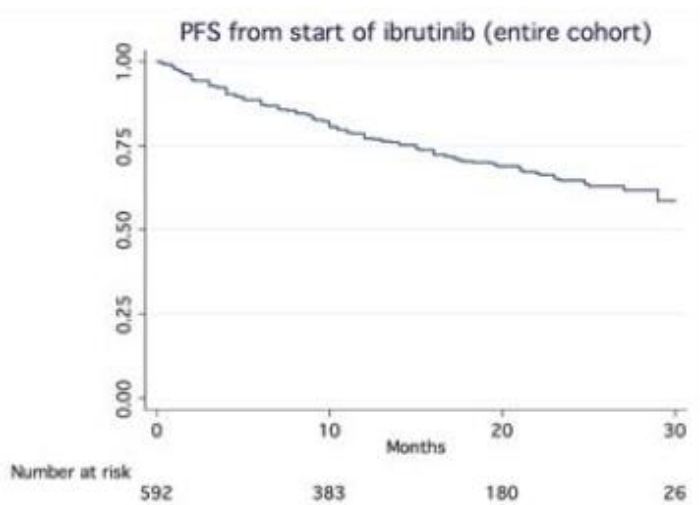
N

Chemoimmunotherapy in the R/R setting: Still useful?

...but maybe
in subgroups

Efficacy of ibrutinib outside clinical trials appears to be lower

Registry data of 621 pts including 536 at relapse receiving ibrutinib

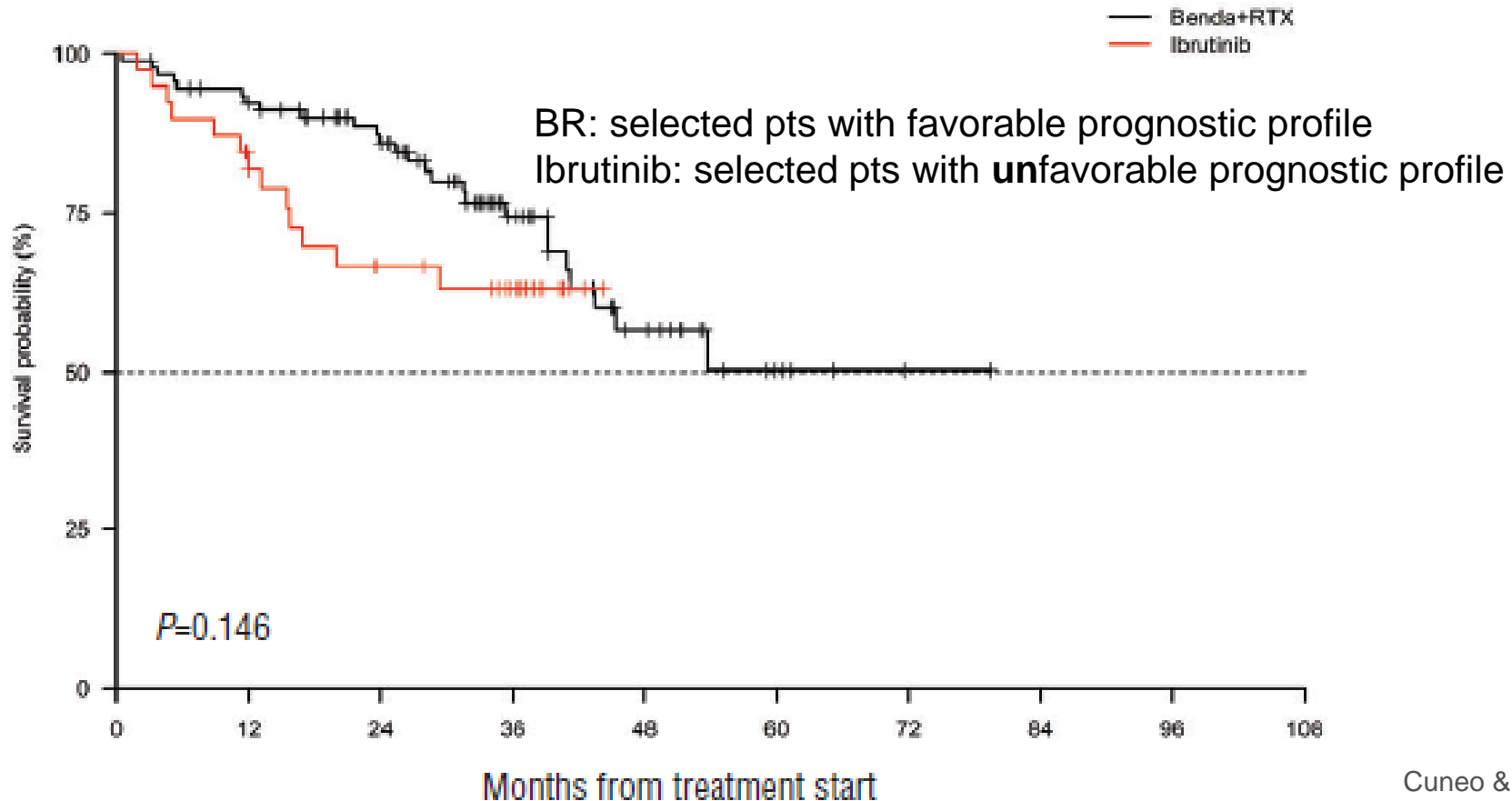


Mato et al., Haematologica 2018

| Reason for ibrutinib discontinuation | Ibrutinib in front-line n=19 | Ibrutinib in relapse n=231 |
|--------------------------------------|------------------------------|----------------------------|
| Toxicity | 63.1% (n=12) | 50.2% (n=116) |
| CLL progression | 15.8% (n=3) | 20.9% (n=49) |
| Other/unrelated death | 5.3% (n=1) | 12.1% (n=28) |
| Physician or patient preference | 10.5% (n=2) | 6.7% (n=15) |
| RT DLBCL | 5.3% (n=1) | 4.6% (n=10) |
| Stem cell transplantation/CAR T-cell | 0 | 3.3% (n=8) |
| Financial concerns | 0 | 0.8% (n=2) |
| Secondary malignancy | 0 | 0.8% (n=2) |
| RT Hodgkin Lymphoma | 0 | 0.4% (n=1) |

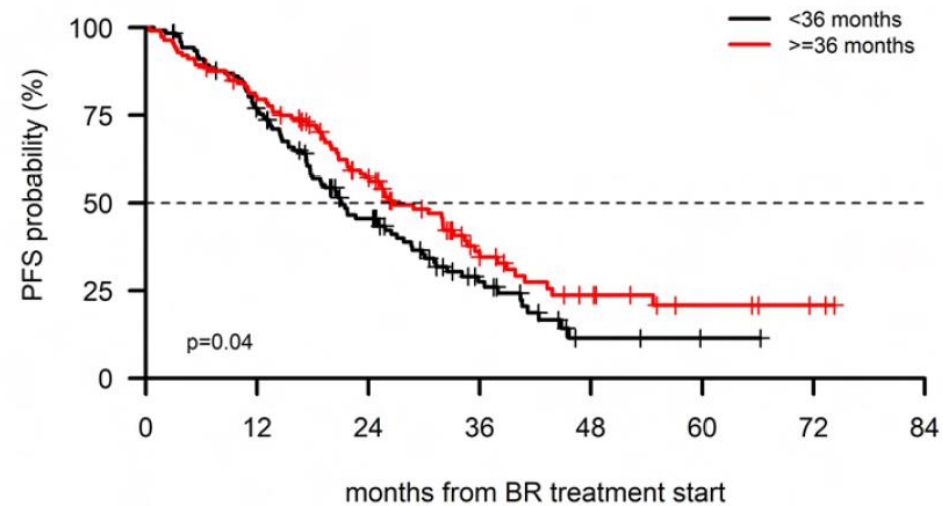
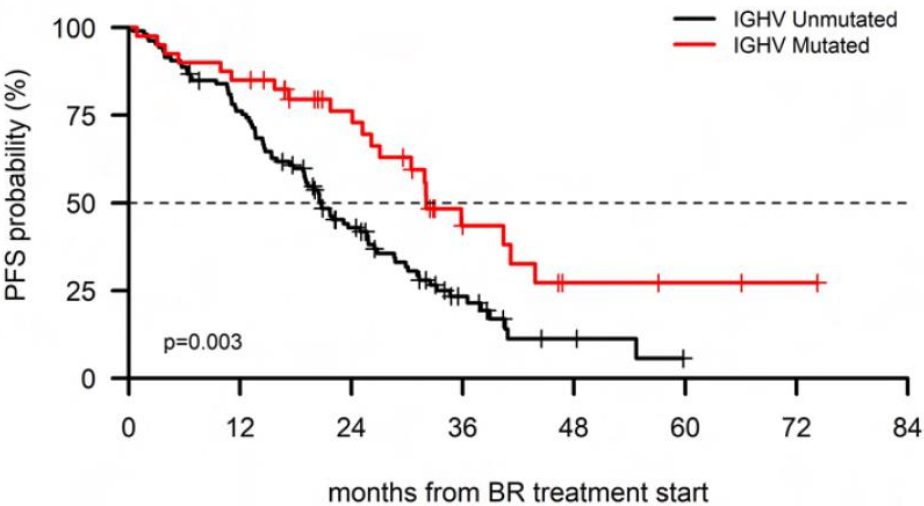
Observational trial of ERIC for BR in 1st relapsed CLL

137 pts from an observational trial for BR without TP53 dysfunction :
Indirect comparison with 71 patients receiving Ibrutinib within a NPP



Observational trial of ERIC for BR in 1st relapsed CLL

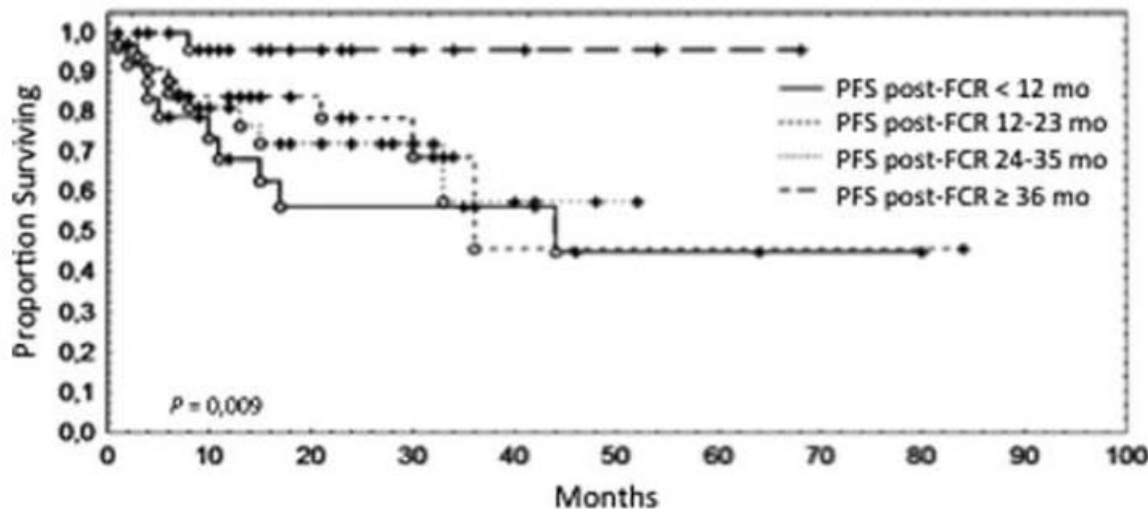
137 pts from an observational trial for BR



Cuneo and Follows et al.,
Haematologica 2018

Relapse > 36 months after FCR is associated with good prognosis

42 of 132 pts with late relapse and salvage treatment after 1st line FCR



Fornecker et al., Am
J Hematol 2015

Selection of relapse treatment according to toxicity profile

| | Ibrutinib | Idelalisib | Venetoclax |
|----------------------------|--|---|---|
| Test | EKG | CMV | GFR CT scan |
| Cave | <ul style="list-style-type: none"> • Anticoagulans • OP | <ul style="list-style-type: none"> • CMV • PJP prophylaxis | <ul style="list-style-type: none"> • High TLS risk |
| Relative Contra-indication | <ul style="list-style-type: none"> • Prior bleeding + Anticoag. • Atrial fib | <ul style="list-style-type: none"> • CMV infection • Transaminitis • Colitis | <ul style="list-style-type: none"> • Renal insufficiency |

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Treatment sequence in CLL



Treatment sequence in CLL:

Is there a role of CIT in pretreated, chemo-naive CLL ?



Use of chemoimmunotherapy in RT to DLBCL

| Regimen | n | CR% | ORR% | PFS months | OS months | Ref. |
|------------------------------------|----|-----|------|------------|-----------|-------------------------|
| O-CHOP+ ¹⁰ -Maintenance | 37 | 25 | 44 | 6 | 11 | Eyre et al. 2016 |
| R-CHOP | 15 | 7 | 67 | 11 | 27 | Langerbeins et al. 2014 |
| R-hyper-CVXD-R-MA | 30 | 38 | 41 | N/A | 10 | Tsimberidou et al. 2003 |
| Hyper-CVXD | 29 | 38 | 44 | N/A | 10 | Dabaja et al. 2001 |
| OFAR1 | 20 | 20 | 50 | 3 | 8 | Tsimberidou et al. 2008 |
| OFAR2 | 35 | 6 | 39 | 3 | 6 | Tsimberidou et al. 2013 |
| FACPGM | 22 | 5 | 5 | 1.5 | 2.2 | Tsimberidou et al. 2002 |

Still a role for chemoimmunotherapy ?

No, but with some exceptions:

- Long lasting (>36 months) remission to prior chemoimmunotherapy AND no TP53 dysfunction
- No compliance to oral drug intake
- Possibly after failure of several lines of targeted agents in chemo-naive patients
- Richter transformation