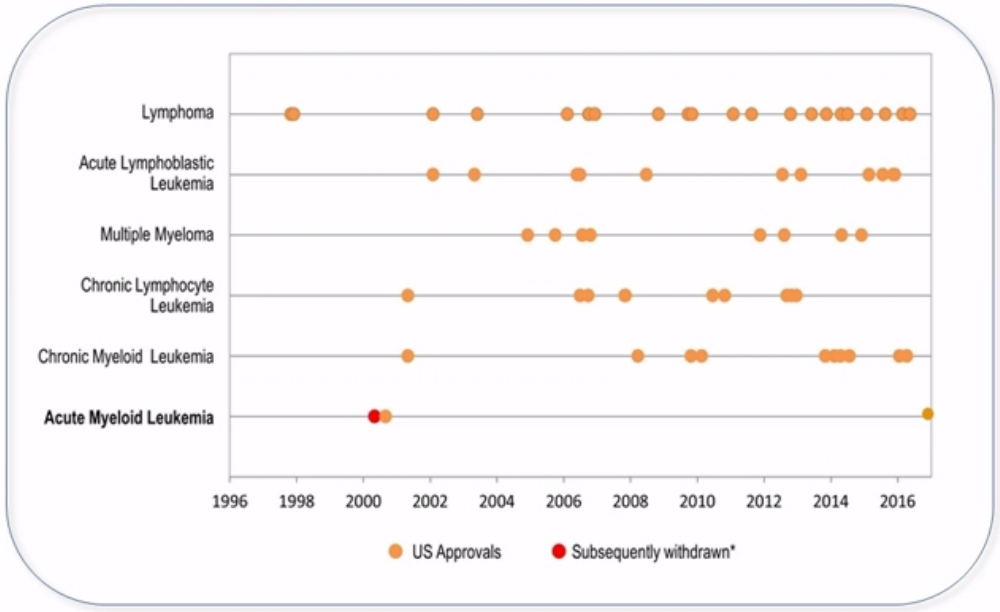
AML patients' survival has improved

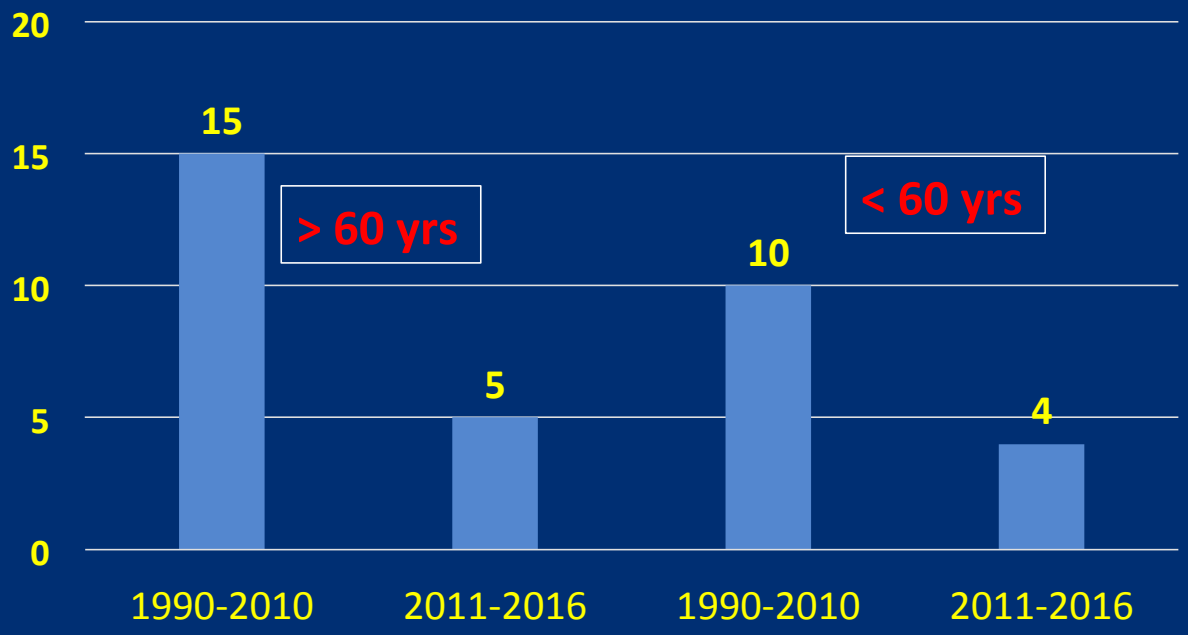
Âge [15;45[	Net 5-yr Survival	
1989-1993	38 [30-48]	
1994-1998	54 [46-63]	
1999-2004	53 [47-61]	+21%
2005-2010	59 [52-67]	
Âge [45;55[		
1989-1993	30 [20-46]	
1994-1998	28 [20-40]	
1999-2004	38 [31-48]	+18%
2005-2010	48 [40-57]	
Âge [55;65[		
1989-1993	25 [18-35]	
1994-1998	22 [16-30]	
1999-2004	35 [28-43]	+3%
2005-2010	28 [22-35]	
	]	
Âge [65;75[		
1989-1993	8 [5-14]	
1994-1998	10 [7-15]	
1999-2004	14 [10-19]	+10%
2005-2010	18 [13-24]	
	]	
Âge [75;++[		
1989-1993	5 [2-10]	
1994-1998	4 [2-8]	
1999-2004	4 [2-7]	+0%
2005-2010	3 [2-6]	

… In the absence of registered new agents



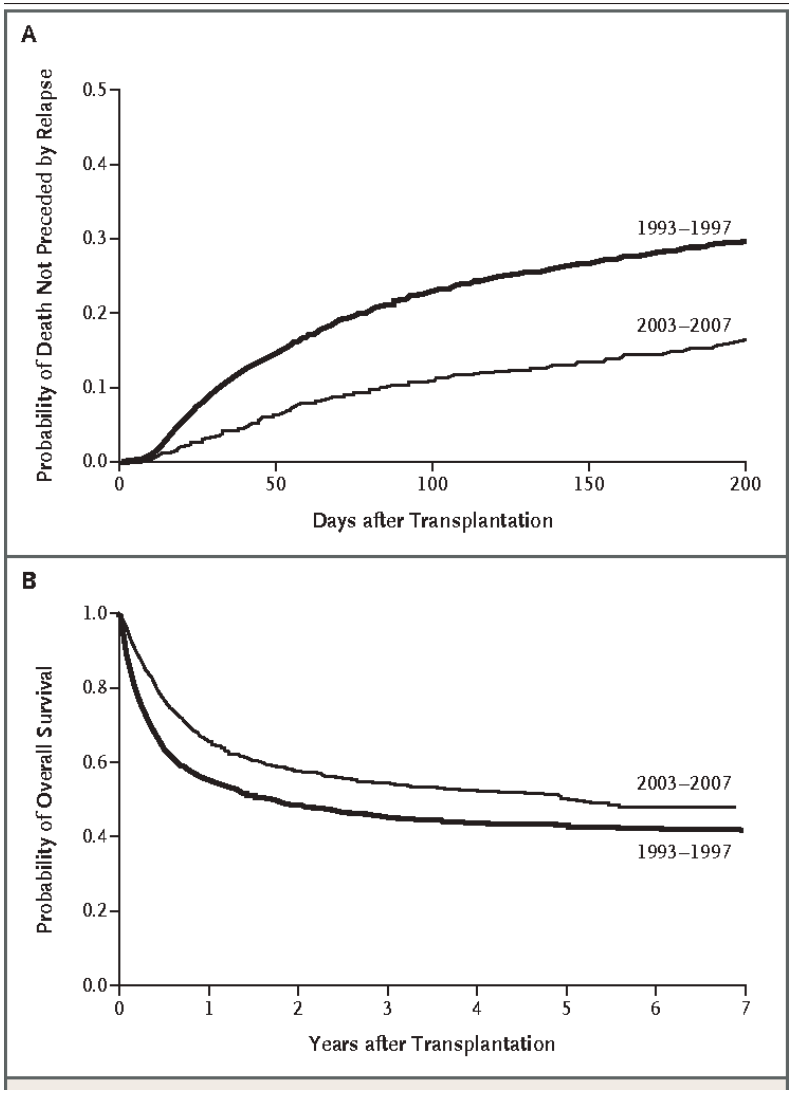
http://www.e-cancer.fr/Expertises-et-publications/Catalogue-des-publications/

Induction Death Rate (%) in AML



Better supportive care
Improved patients selection (HMA)

Hematology Cardarelli Hospital, 5/2018



Gooley et al, NEJM, 2010

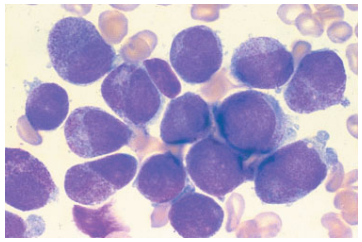
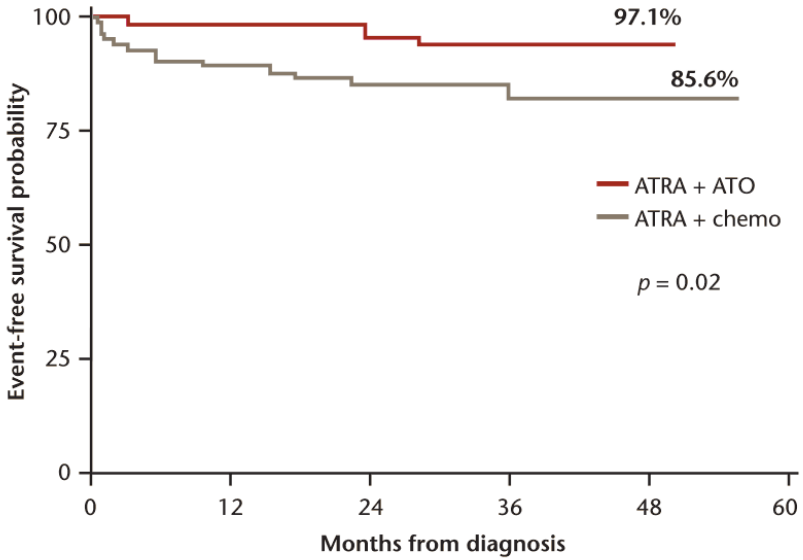


Figure 6. Event-free survival



ATO = arsenic trioxide; ATRA = all-transretinoic acid; Chemo = chemotherapy

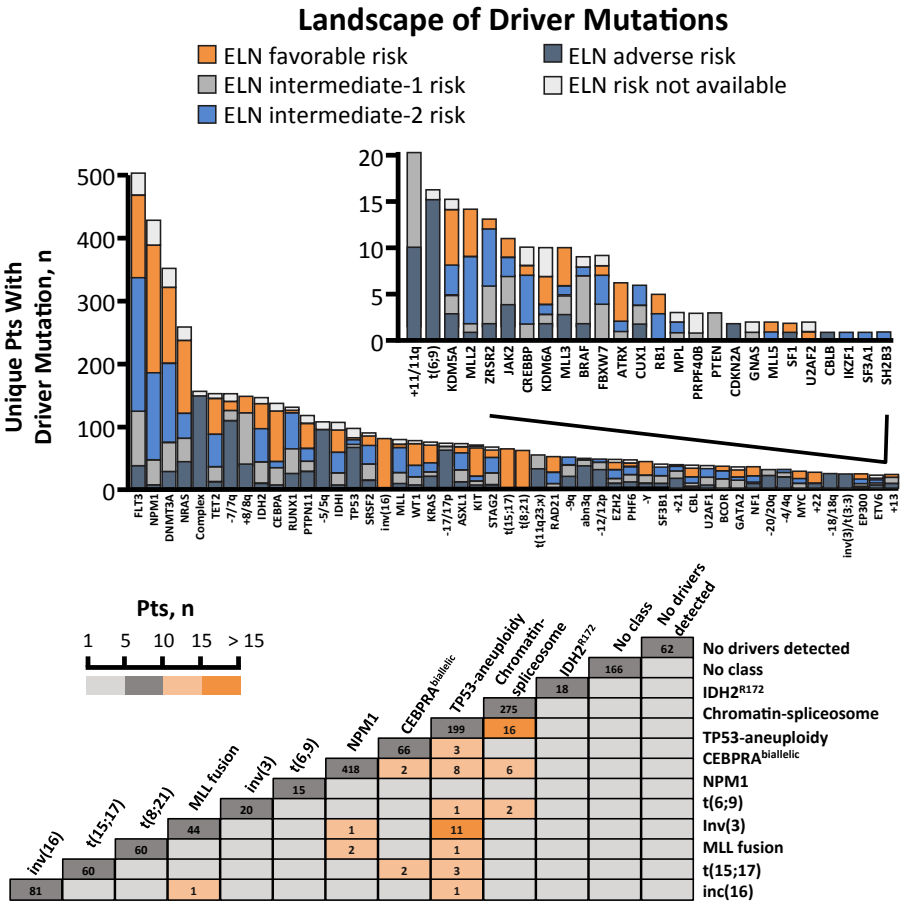
Lococo et al, JCO, 2017

Mutations in AML

Analysis	Before 2008	2008–12	From 2013	
	Cytogenetic and molecular genetic analysis	Next-generation sequencing approaches	The Cancer Genome Atlas project	Prevelence in AML (%)
Functional groups	Class I: activated signalling—eg, *FLT3*, *KIT*, *RAS* mutations	Class I: activated signalling—eg, *FLT3*, *KIT*, *RAS* mutations	Class 1: transcription factor fusions—eg, t(8;21), t(16;16), t(15;17), *MLL* fusions	18%
			Class 2: nucleophosmin 1, *NPM1* mutations	27%
			Class 3: tumour suppressor genes—eg, *TP53*, *WT1*, *PHF6* mutations	16%
	Class II: transcription and differentiation—eg, t(8;21), t(16;16), t(15;17) *CEBPA* mutations	Class II: transcription and differentiation—eg, t(8;21), t(16;16), t(15;17), *CEBPA*, *RUNX1* mutations	Class 4: DNA-methylation-related genes: DNA hydroxymethylation—eg, *TET2*, *IDH1*, *IDH2* DNA methyltransferases eg, *DNMT3A*	44%
			Class 5: activated signalling genes—eg, *FLT3*, *KIT*, *RAS* mutations	59%
			Class 6: chromatin-modifying genes, eg, *ASXL1*, *EZH2* mutations, *MLL* fusions, *MLL* partial tandem duplications	30%
		Class III: epigenetic modifiers—eg, *TET2*, *DNMT3A*, *ASXL1* mutations	Class 7: myeloid transcription factor genes—eg, *CEBPA*, *RUNX1* mutations	22%
			Class 8: cohesin-complex genes—eg, *STAG2*, *RAD21*, *SMC1*, *SMC2* mutations	13%
			Class 9: spliceosome-complex genes—eg, *SRSF2*, *U2AF35*, *ZRSR2* mutations	14%

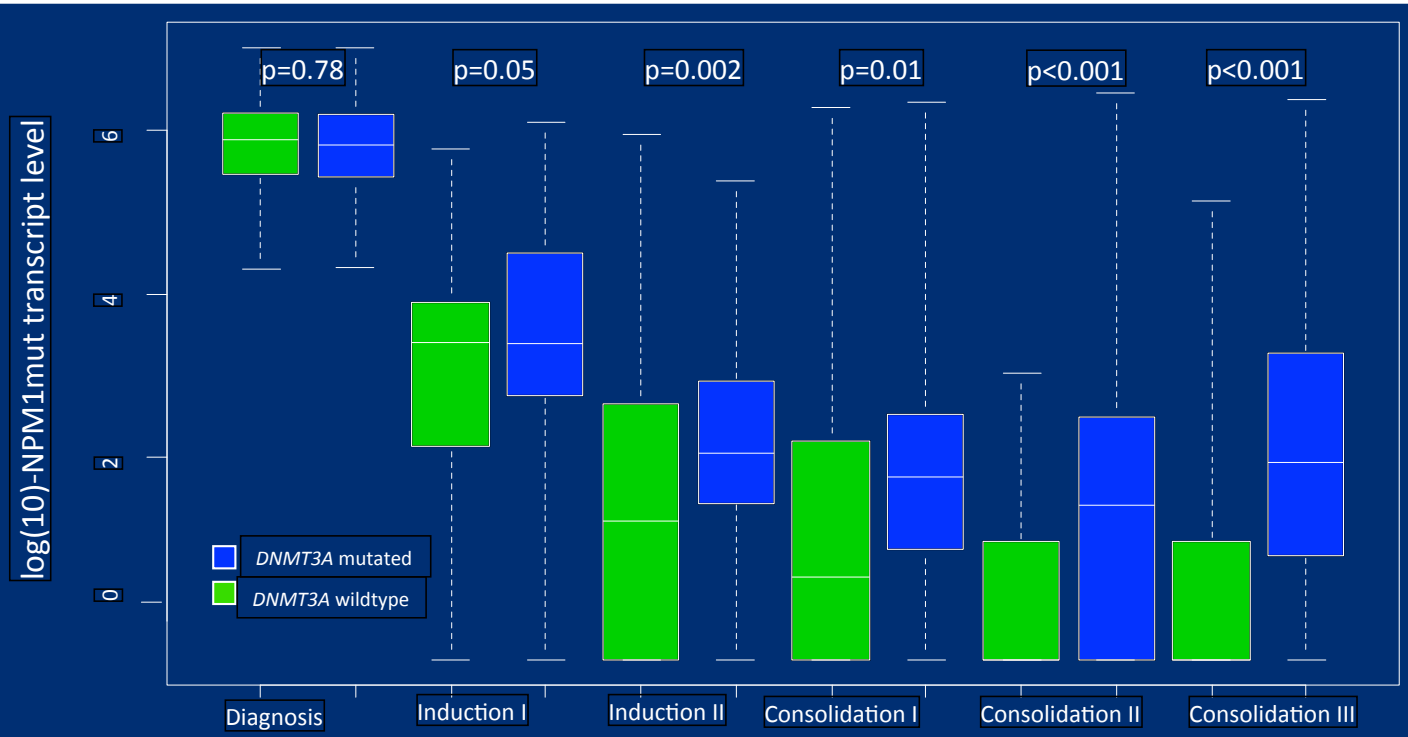
AML: Pathogenesis

- Complex, diverse disease
- Genetic abnormalities include ultrastructrual changes to chromosomes, gene mutations (eg, *DNAMT3A, TET2, FLT3, NPM1, IDH1/2, TP53*), epigenetic changes, and changes in RNA splicing factors
- 86% pts have ≥ 2 genetic drivers
- **Conclusion: AML is complicated !**

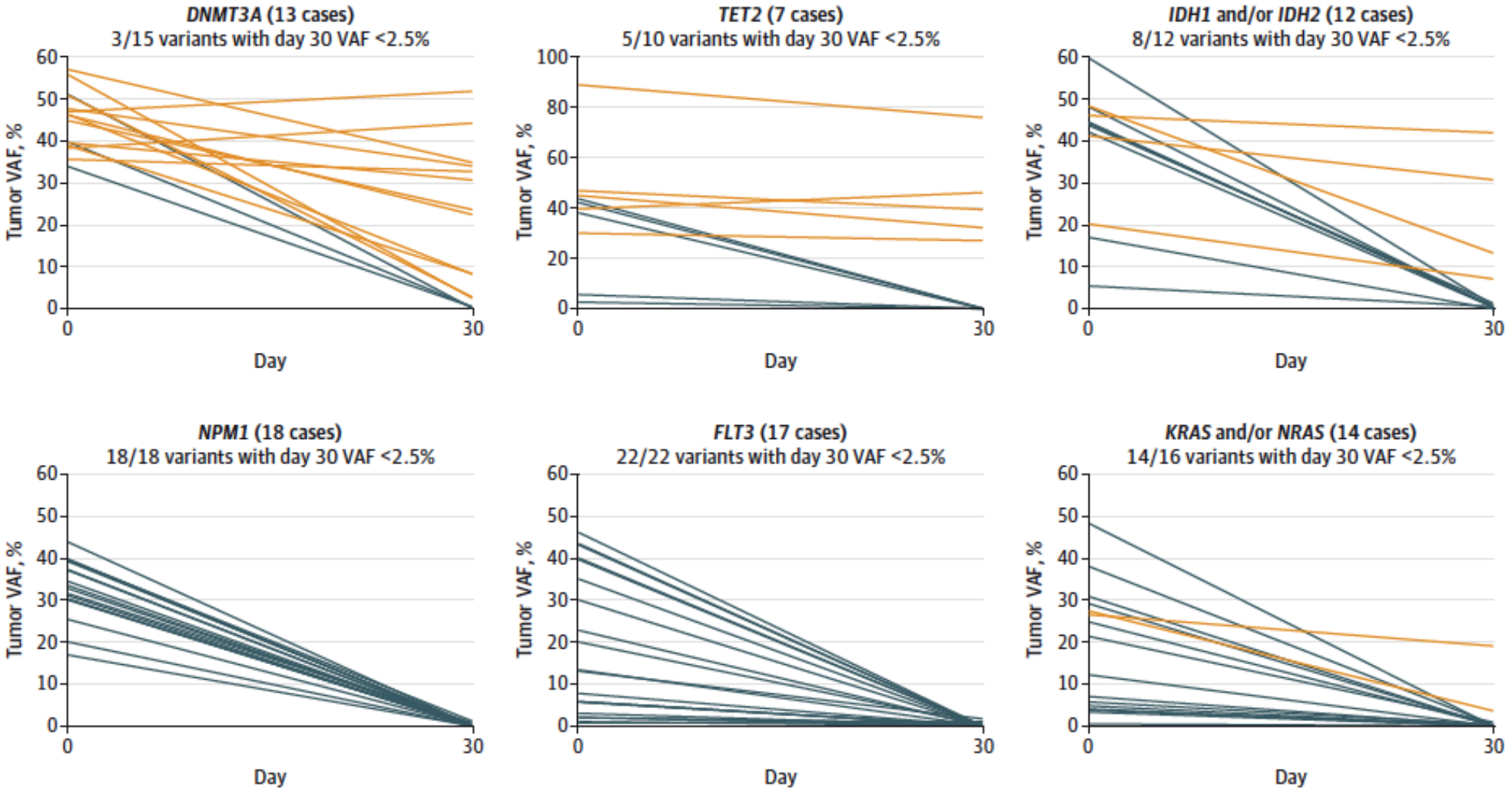


Papaemmanuil E, et al. N Engl J Med. 2016;374:2209-2221.

Impact of *DNMT3A* mutation on *NPM1*^{mut} transcript levels



Samples, n	108	121	79	88	71	69	47	51	32	37	31	25
Median	768873	670832	2568	2494	16	113	3	58	0	26	0	87
Negative, n	0	0	7	4	23	5	20	10	18	10	19	4
Negative %	0.0	0.0	8.9	4.5	32.4	7.2	42.5	19.6	56.3	27.0	61.3	16.0



Klco et al, JAMA Onc, 2015

PERSPECTIVE

The Case for Abandoning Induction Chemotherapy

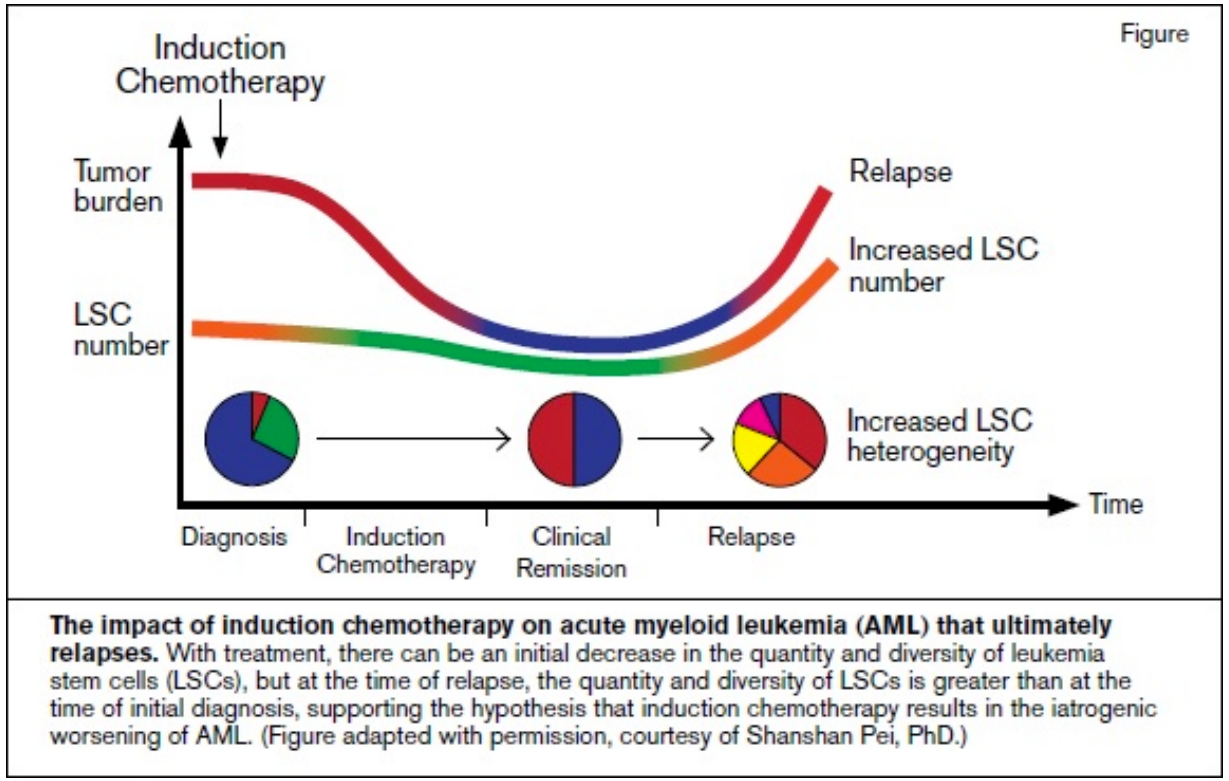
DANIEL A. POLLYEA, MD, MS

Associate Professor of Medicine, Division of Hematology, University of Colorado School of Medicine, Aurora, CO

If the definition of insanity is doing the same thing over and over again and expecting a different result (just as the definition of a bad review article may be one that leads off with a questionable cliché), hematologists treating acute myeloid leukemia (AML) with intensive induction chemotherapy should reconsider the logic of this approach. To be fair, there are subsets of patients, such as those with core binding factor chromosomal rearrangements, or *NPM1* or *CEBPA* mutations, for whom intensive chemotherapy is effective and potentially curative.[1-3] For everyone else, the long-standing argument in favor of induction chemotherapy is that it beats the alternative, which in the absence of any U.S. Food and Drug Administration (FDA) –approved therapies is ... nothing. Generations of hematologists who spent careers banging their heads against the chemotherapy wall would certainly have traded their purine analogs in for a sleek new targeted therapy. Colleagues, the time is now upon us: I am excited to announce that the field has officially entered the postchemotherapy era. Allow me to explain.

First, we must make the case as to why there is a need to abandon intensive induction chemotherapy. For patients younger than 60 years, the complete remission (CR) rate with induction is around 70 percent, but the treatment-related mortality (TRM) rate may be as high as 13 percent; five-year overall survival (OS), the surrogate endpoint for cure, is only around 30 percent.[4] Not surprisingly, given that the basic recipe for induction chemotherapy has not substantially changed in more than 40 years,[5] no meaningful improvements in outcomes have occurred for decades that are not attributable to advancements in supportive care or transplantation.[6]

The Hematologist, 2017



The impact of induction chemotherapy on acute myeloid leukemia (AML) that ultimately relapses. With treatment, there can be an initial decrease in the quantity and diversity of leukemia stem cells (LSCs), but at the time of relapse, the quantity and diversity of LSCs is greater than at the time of initial diagnosis, supporting the hypothesis that induction chemotherapy results in the iatrogenic worsening of AML. (Figure adapted with permission, courtesy of Shanshan Pei, PhD.)

can be slain. In light of these reports, we must consider the reality that very often, when treating AML with intensive chemotherapy, we are not simply passive users of a therapy that doesn't work very well, but instead, *we are responsible for making this disease worse*. Call relapsed AML after induction what it is: iatrogenic AML (Figure).

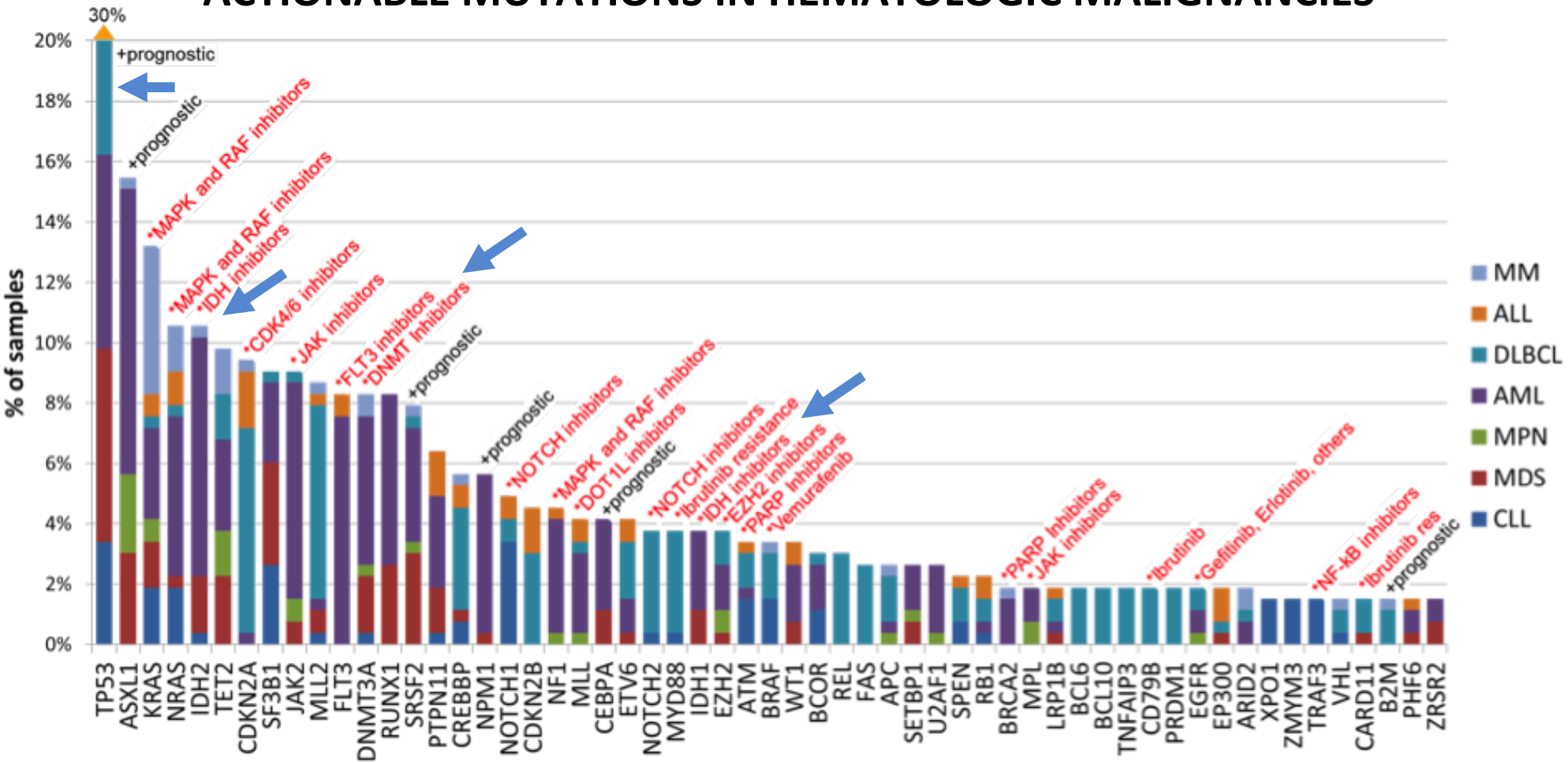
(Cont. on page 13)

The Hematologist, 2017

Significant resources, from investigators, granting agencies, and most importantly, study subjects, have been invested in attempting to improve induction chemotherapy, but we've now entered an era in which this could be eliminated. Perhaps it is we the clinicians who need to be weaned from induction; maybe it is the crutch keeping us limping but preventing us from running.

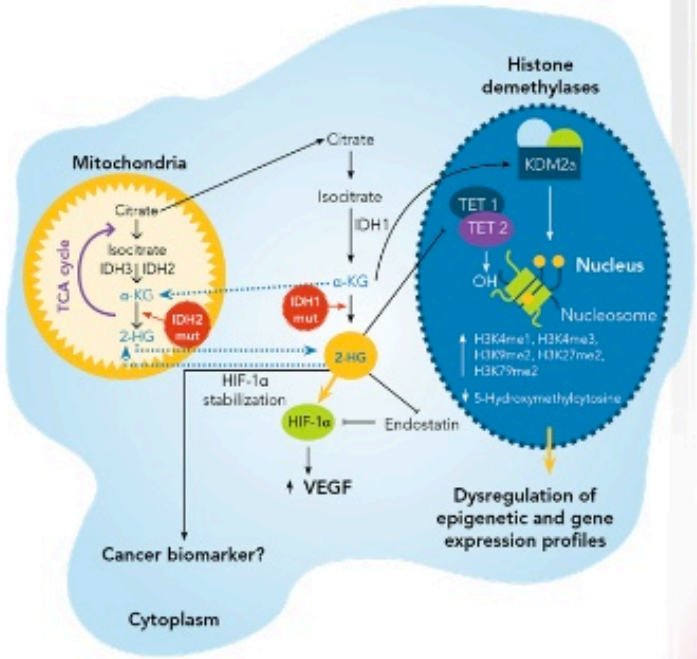
The Hematologist, 2017

ACTIONABLE MUTATIONS IN HEMATOLOGIC MALIGNANCIES

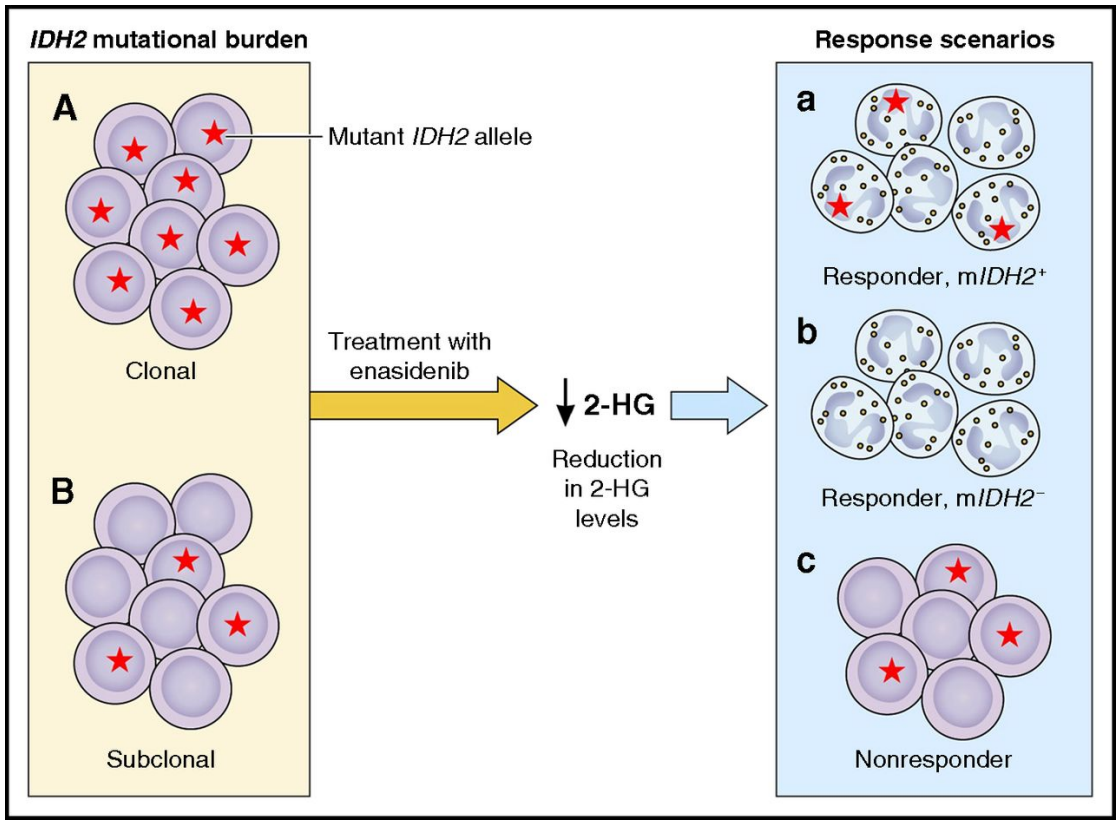


Isocitrate Dehydrogenase (IDH) Mutations as a Target in AML

- **IDH is an enzyme of the citric acid cycle**
- **Mutant *IDH2* produces 2-hydroxyglutarate (2-HG), which alters DNA methylation and leads to a block in cellular differentiation**
- **AG-221 (CC-90007) is a selective, oral, potent inhibitor of the mutant *IDH2* (m*IDH2*) enzyme**



Response dynamics in IDH2 mutant AML patients treated with enasidenib.



Bas J. Wouters Blood 2017;130:693-694

Outcomes of Relapsed/Refractory Patients with IDH1/2 Mutated AML Treated with Non-Targeted Therapy: Results from the NCRI AML Trials

	IDH1 mutation			IDH2 mutation		
	Overall	Age <60	Age 60+	Overall	Age <60	Age 60+
CR						
Overall	19/83 (23%)	14/58 (24%)	5/25 (20%)	24/130 (18%)	22/91 (24%)	2/39 (5%)
Refractory	5/9 (56%)	3/5 (60%)	2/4 (50%)	9/20 (45%)	7/14 (50%)	2/6 (33%)
Relapsed post SCT	2/14 (14%)	2/11 (22%)	0/3 (0%)	3/20 (15%)	3/16 (19%)	0/4 (0%)
Relapse <1yr	12.56 (21%)	9/39 (23%)	3/17 (18%)	11/83 (13%)	11/55 (20%)	0/28 (28%)
2nd relapse	0/4 (0%)	0/3 (0%)	0/1 (0%)	1/7 (14%)	1/5 (20%)	0/1 (0%)
Median survival (m); 2 y OS						
Overall	4.4; 17%	4.0; 19%	5.2; 13%	6.6; 21%	9.4; 27%	2.9; 8%
Refractory	8.7; 22%	6.7; 0%	n.r.; 50%	18.2; 40%	18.3; 43%	14.4; 33%
Relapsed post SCT	4.4; 7%	4.1; 9%	4.7; 0%	3.7; 5%	3.5; 6%	4.1; 0%
Relapse <1yr	4.9; 20%	8.4; 26%	4.2; 6%	6.9; 22%	10.9; 32%	2.2; 4%
2nd relapse	2.6; 0%	2.6; 0%	--	2.2; 0%	2.1; 0%	5.4; 0%

Hills KR et al, ASH 2018, Abs 664

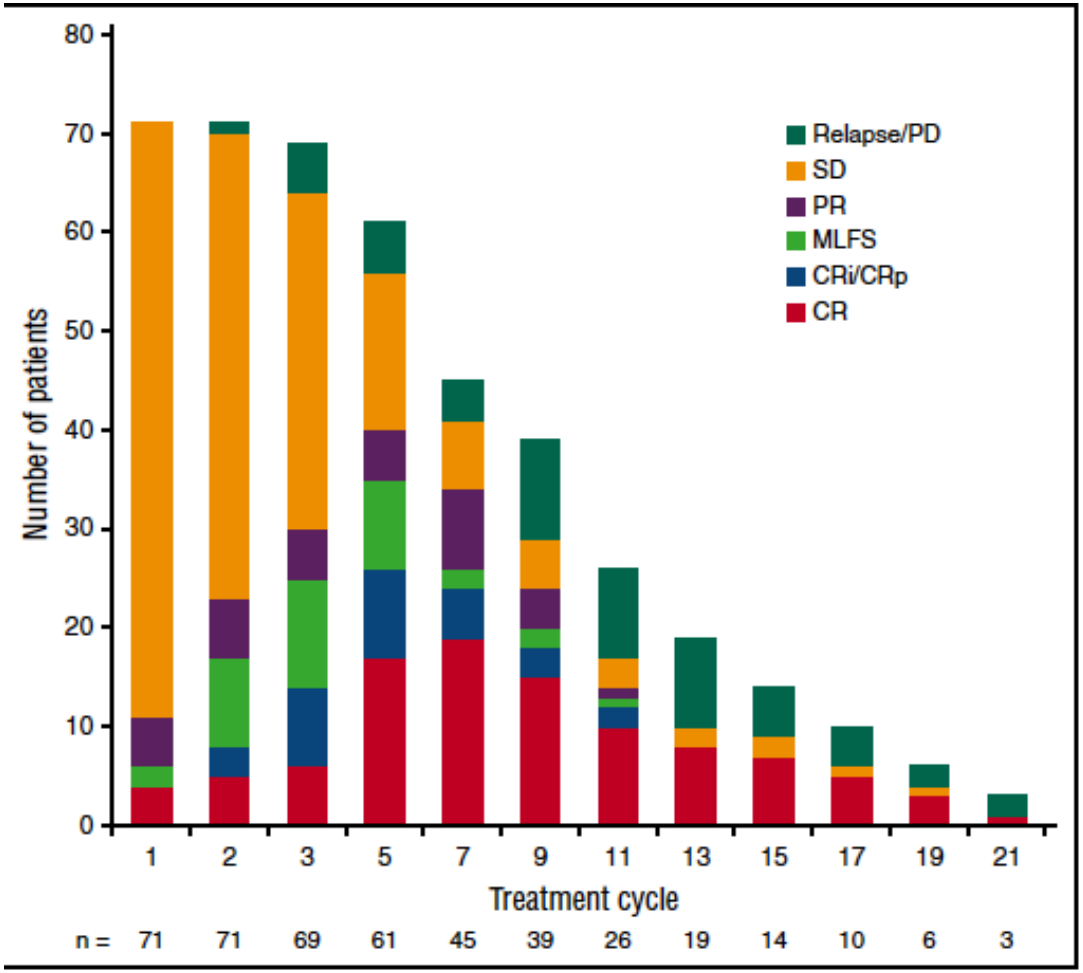
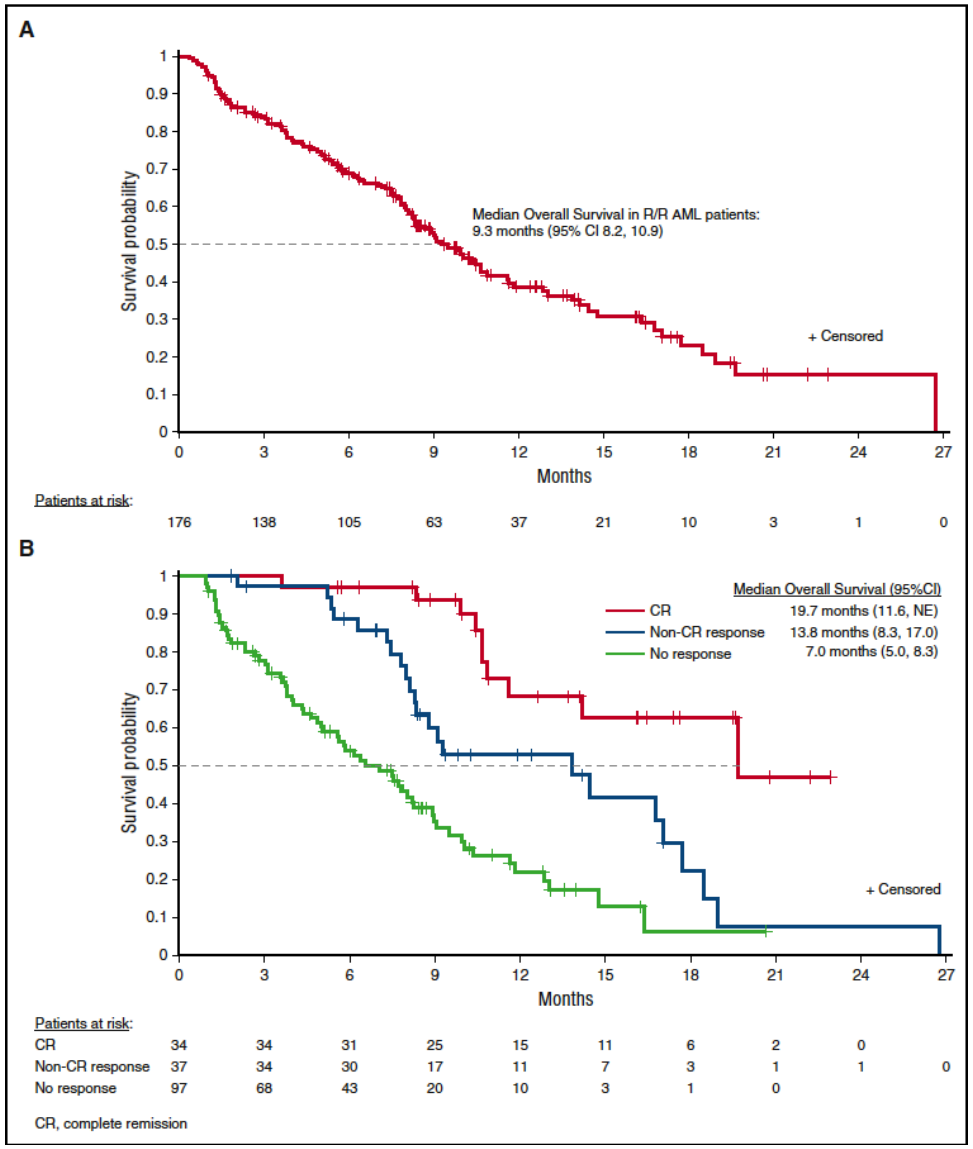


Figure 1. Evolution of response during treatment of responding patients (n = 71). Bars reflect responses at each cycle. CR, complete response; CRi, CR with incomplete hematologic recovery; CRp, CR with incomplete platelet recovery; MLFS, morphologic leukemia-free state; PD, progressive disease; PR, partial response; SD, stable disease.

Stein et al. Blood. 2017



Stein et al. Blood. 2017

Ivosidenib in Mutant *IDH1* AML: Response in Primary R/R AML Set

Outcome	Primary R/R AML Set (n = 125)
CR + CRh, % (95% CI)	30.4 (22.5-39.3)
▪ Median time to CR/CRh, mos (range)	2.7 (0.9-5.6)
▪ Median duration of CR/CRh, mos (range)	8.2 (5.5-12.0)
CR, % (95% CI)	21.6 (14.7-29.8)
▪ Median time to CR, mos (range)	2.8 (0.9-8.3)
▪ Median duration of CR, mos (95% CI)	9.3 (5.6-18.3)
CRh, %*	8.8
ORR, % (95% CI)	41.6 (32.9-50.8)
▪ Median time to first response, mos (range)	1.9 (0.8-4.7)
▪ Median duration of response, mos (95% CI)	6.5 (4.6-9.3)
Best response, %	
▪ CR	21.6
▪ CRi or CRp	12.8
▪ MLFS	7.2
▪ SD	35.2
▪ PD	10.4
▪ NA	12.8

- Median treatment duration for primary R/R AML set: 3.9 mos (range: 0.1-25.8)

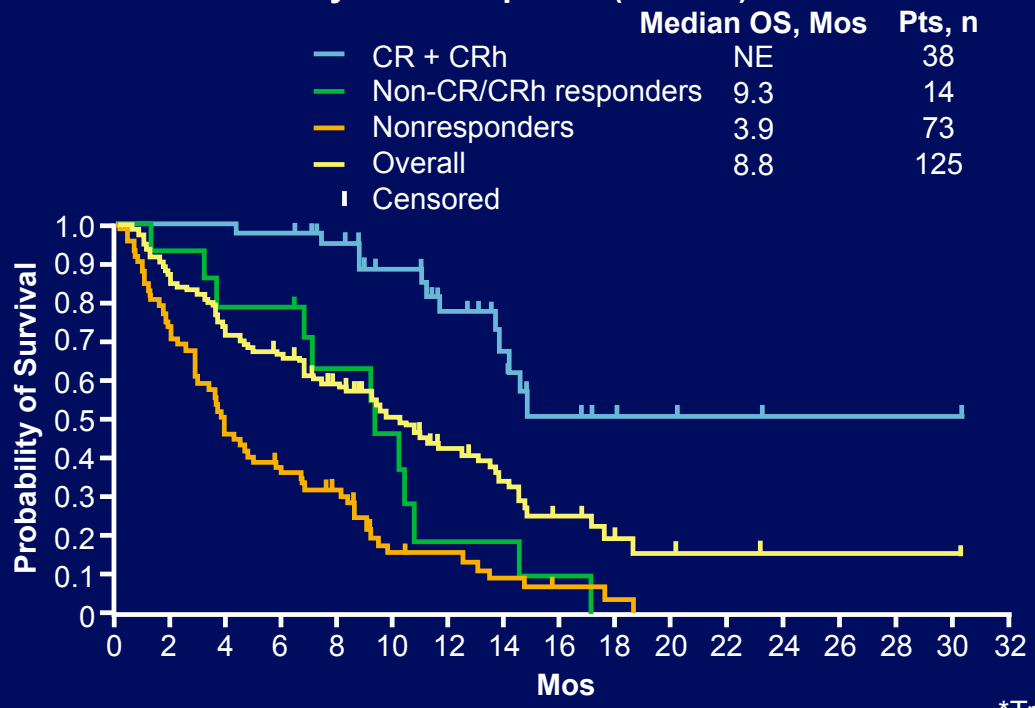
Duration of Best Overall Response in Responders (n = 52)			
Duration of Response	**CR + CRh**	**CR**	**All**
Median, mos	8.2	9.3	6.5
At 6 mos, %	59.3	67.5	55.0
At 12 mos, %	32.4	41.2	24.6

*6 pts w/investigator-assessed CRi/CRp, 5 w/MLFS

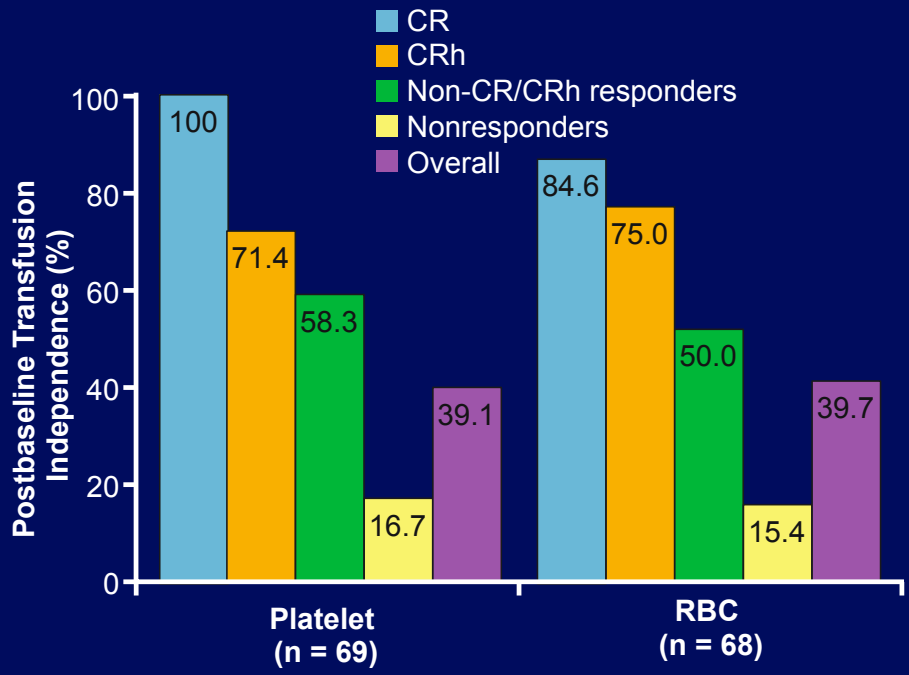
DiNardo CD, et al. ASH 2017. Abstract 725.

Ivosidenib in Mutant *IDH1* AML: OS and Transfusion Independence in R/R AML

OS by Best Response (n = 125)



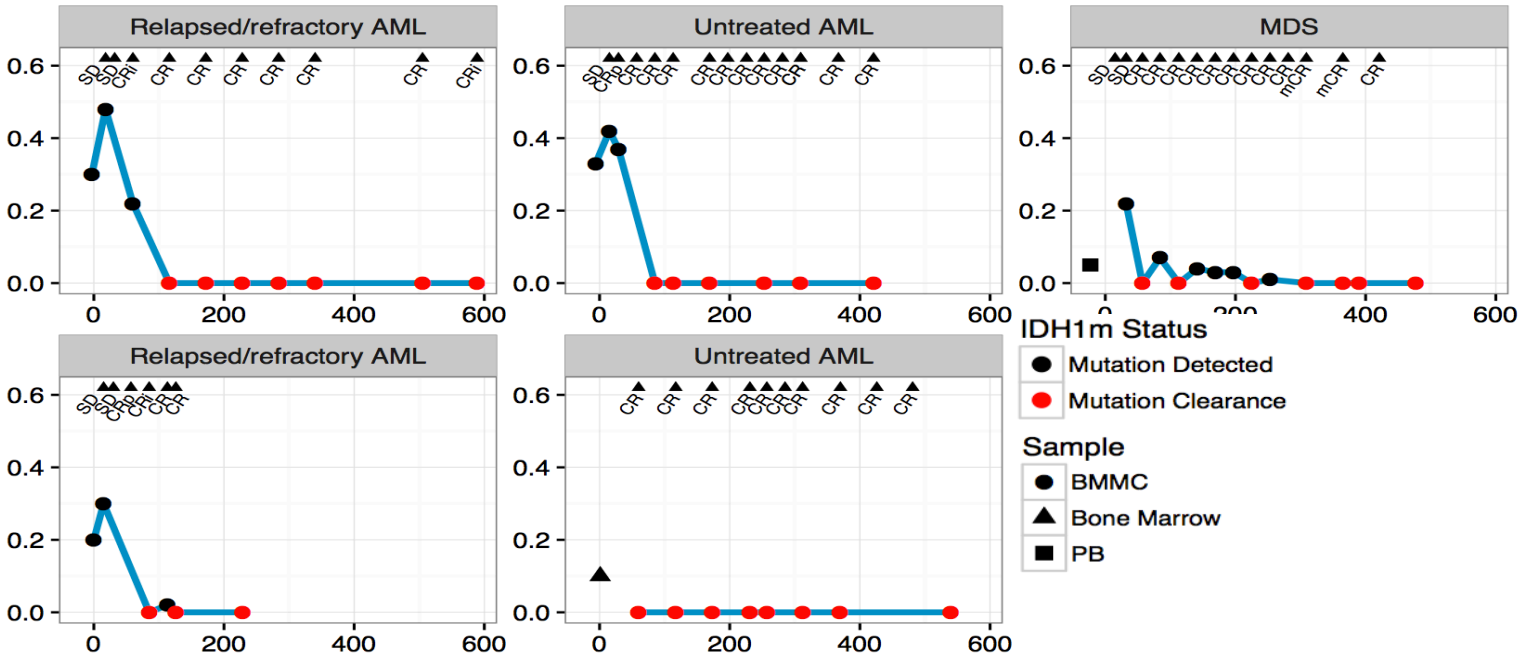
Independence from Transfusion by Best Response*



*Transfusion independence: no transfusion for at least 1 56-day period.

DiNardo CD, et al. ASH 2017. Abstract 725.

AG-120: IDH1 Mutation Clearance in Patients with CR (5/14 Patients)



Dinardo CD, et al. *Blood.* 2016;128:1070a.

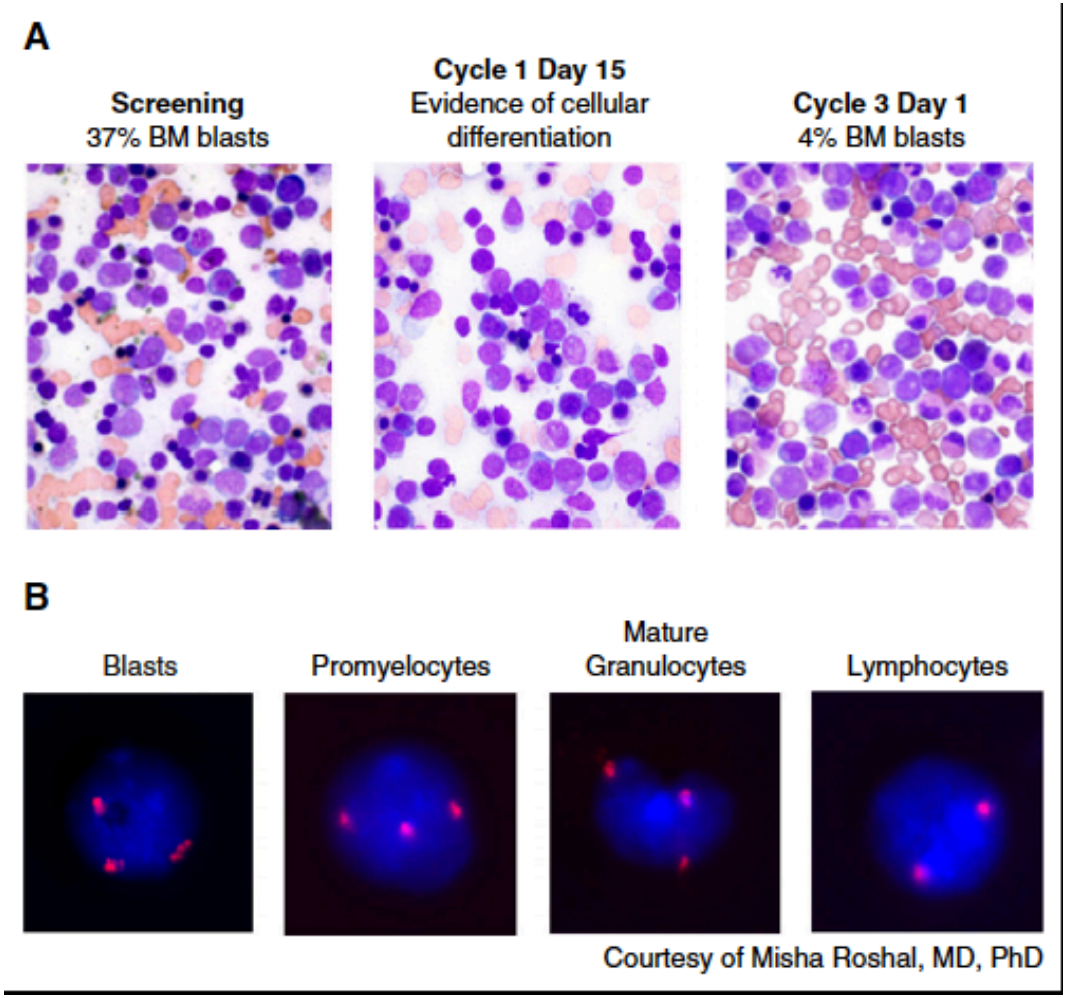


Fig.3

Amatangelo MD et al. Blood. 2017

Table: Characteristics of FDA-Identified Cases of DS

	Ivosidenib (N=34)	Enasidenib (N=41)
Severity[1]		
Moderate	24 (71%)	33 (80%)[2]
Severe	8 (24%)	5 (12%)[2]
Indeterminate	2 (6%)	4 (10%)
Grade ≥ 3 ARs[3]		
Yes	23 (68%)	27 (66%)
Fatal	2 (6%)	2 (5%)
Leukocytosis[4]		
Yes	27 (79%)	25 (61%)
Time to onset (days)[5]		
Median (range)	20 (1-78)	19 (1-86)
Multiple episodes DS[6]		
Yes	4 (12%)	6 (15%)
CR+CRh response		
N (%, 95% CI)	6 (18%, 7-35%)	7 (18%, 7-33%)[7]

Abbreviations: AR, adverse reaction; CI, confidence interval; CR, complete remission; CRh, complete remission with partial hematologic recovery; DS, differentiation syndrome.

[1] Per Montesinos et al (Blood 2009)
[2] One patient with multiple episodes of DS had both severe and moderate episodes.
[3] DS AEs reported by the algorithm.
[4] As per the concomitant leukocytosis query detailed in the methods.
[5] Time to date of first AE.
[6] Defined as subsequent cases of DS separated by > 14 days.
[7] Denominator was 40 patients in the efficacy population of Study AG221-C-001.

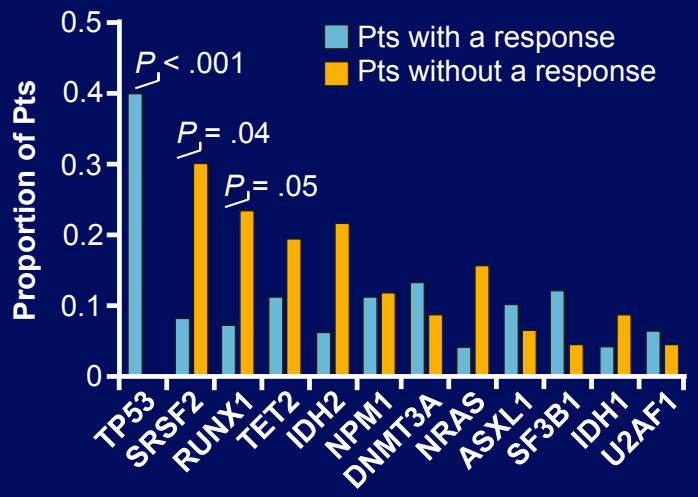
Norsworthy KJ et al. ASH 2018, Abs288

TP53 Mutations: Frequency and Prognosis

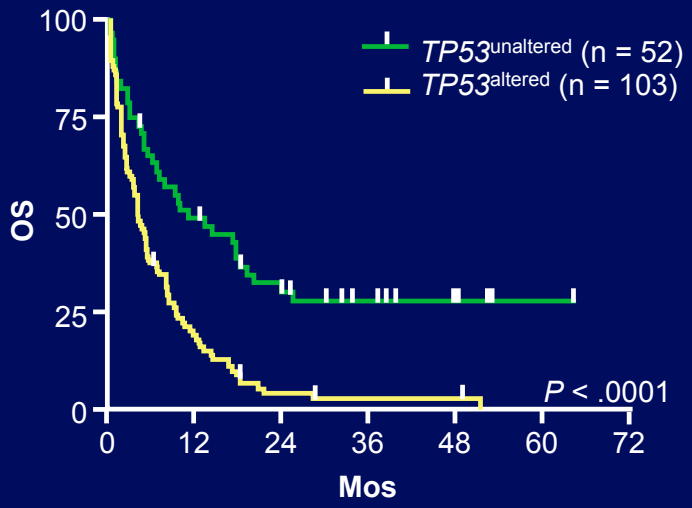
- *TP53* mutations found in ~ 8% of AML pts[1]
  - Incidence increases with age
  - Predominantly in pts with *complex karyotype*
- Confers poor outcome to chemo, including lower CR rates, inferior RFS, OS[2]

All 21 pts w/mutated *TP53* responded

Response to Decitabine by Gene Mutation[3]



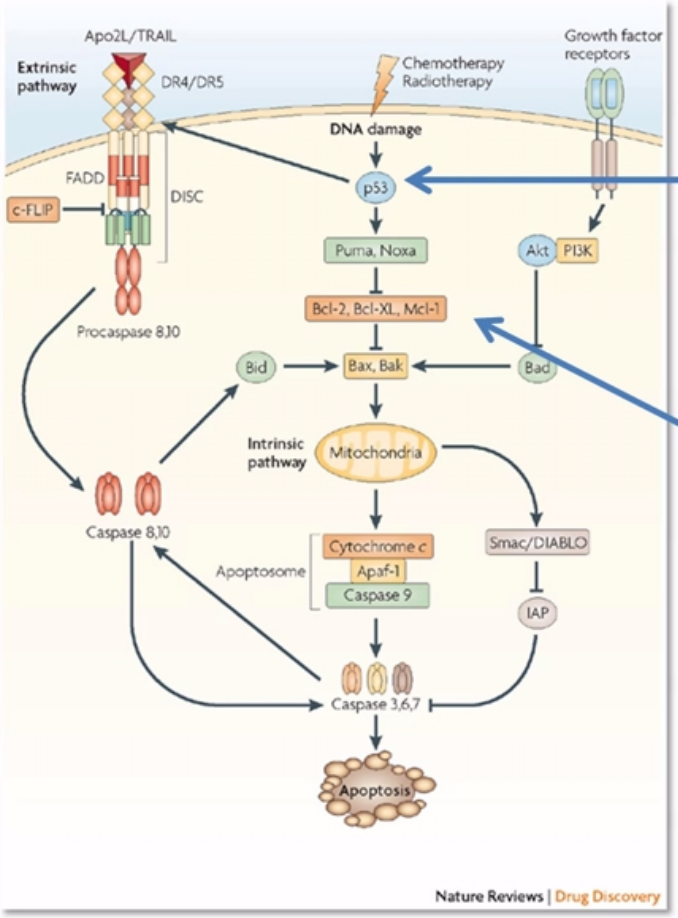
OS by Karyotype Complexity[2]



1. Döhner H, et al. N Engl J Med. 2015;373:1136-1152. 2. Rucker FG, et al. Blood. 2012;119:2114-2121. 3. Welch, et al. N Engl J Med. 2016;375:2023.

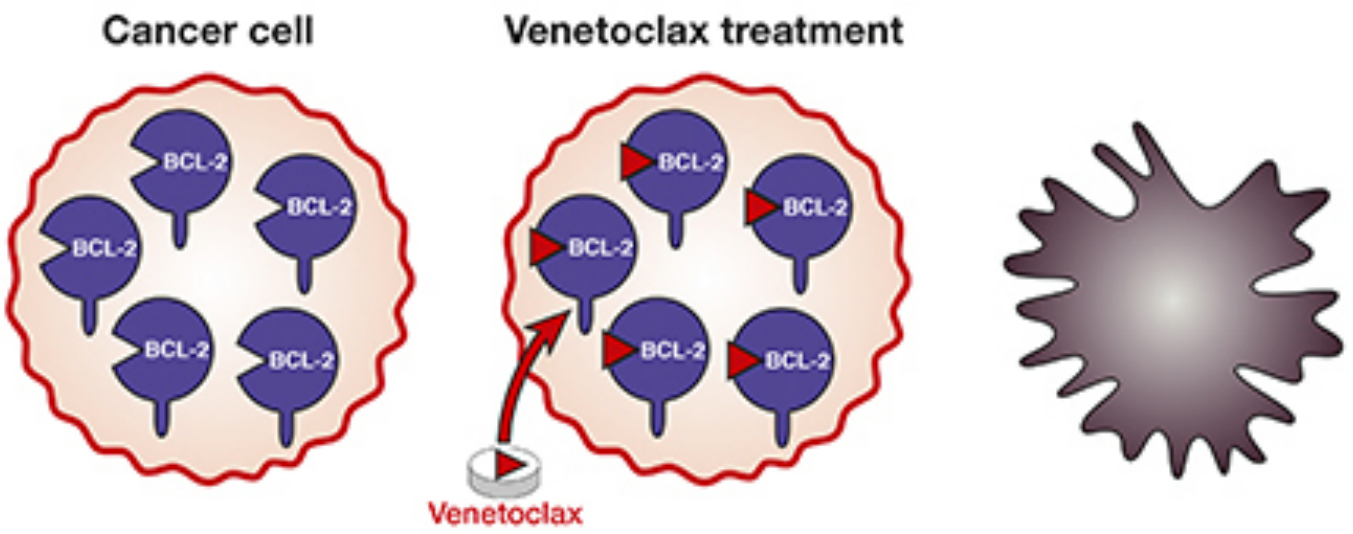

SNVs
TP53
Chemotherapy
Selection for
TP53 mutated
clone
1. Additional
driver mutations
2. Clonal
expansion of
leukemic clone

Induction of apoptosis in AML

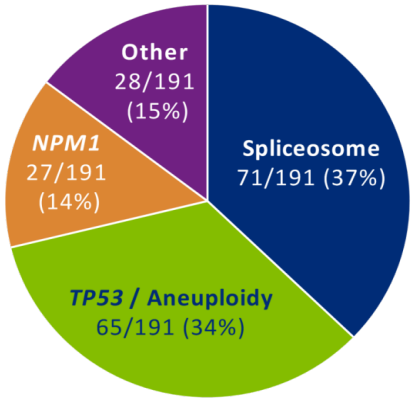


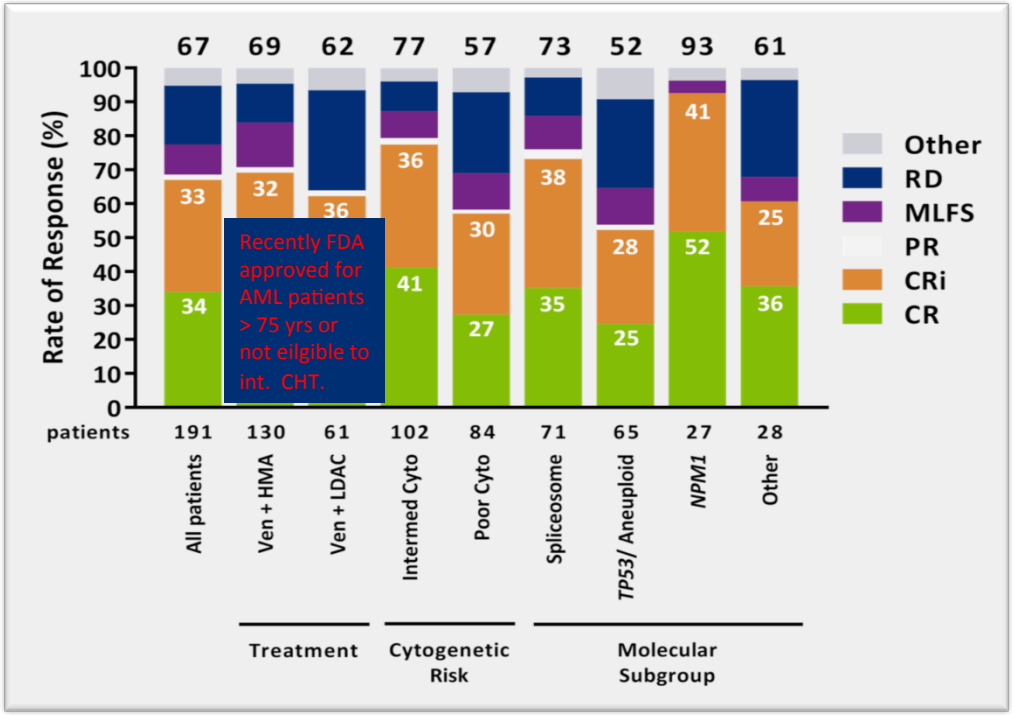
Activation of wild-type p53

Inhibition of BCL2 and other anti-apoptotic proteins


Cancer cell
Venetoclax treatment
BCL-2
BCL-2
BCL-2
BCL-2
BCL-2
BCL-2
BCL-2
BCL-2
BCL-2
BCL-2
Venetoclax
•Addicted to high levels of BCL-2
•Cell becomes long-lived
•Resistant to anti-cancer treatments
•BCL-2 inhibited
•Cancer cell dies, or responds to other anti-cancer treatments
•Cancer cell dies

Response Rates by Patient Subgroups

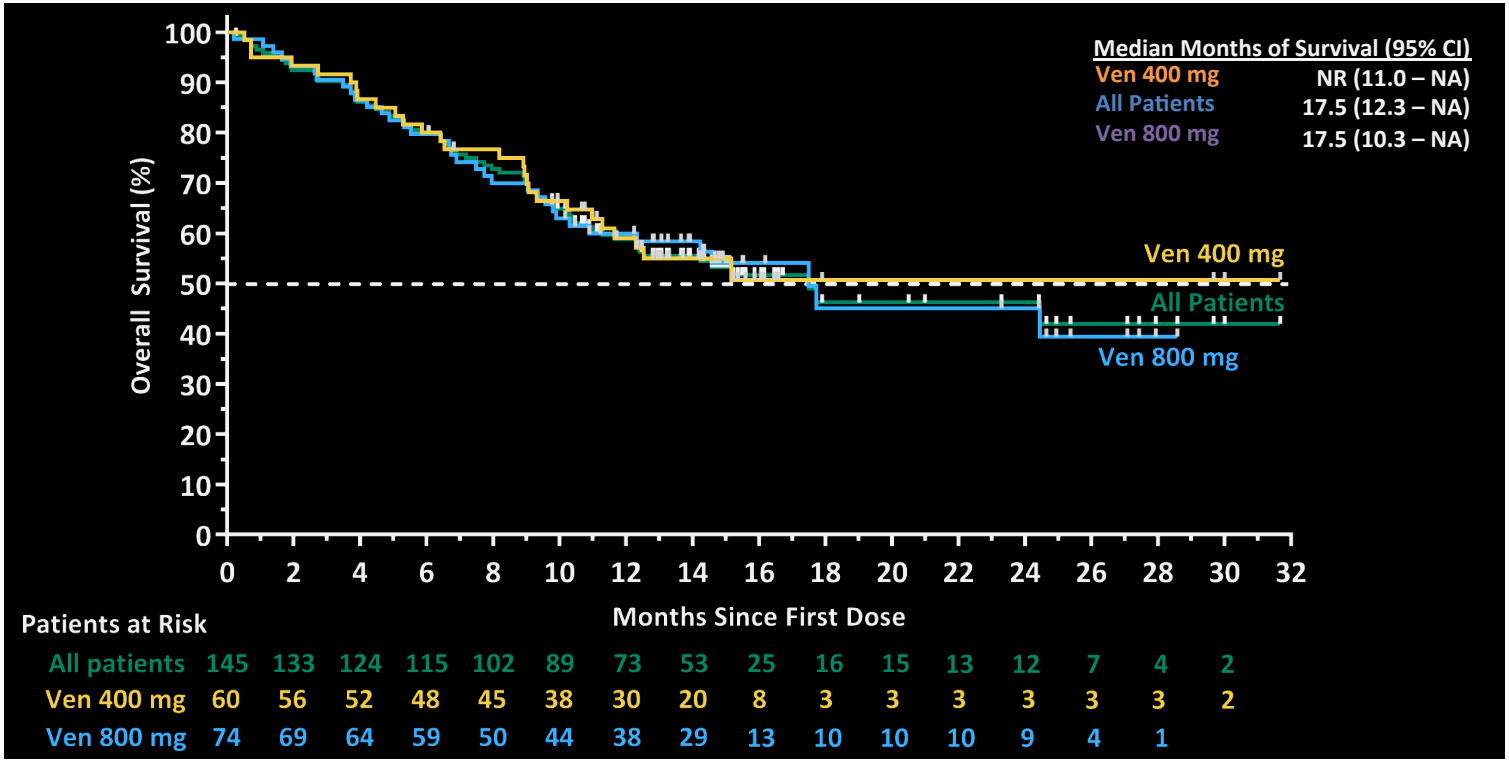




- CR/CRi higher in intermediate cytogenetic risk in poor risk pts
- Spliceosome or *NPM1* mutations pts higher rates of CR/CRi (>70%)
- *TP53* mutations or aneuploidy pts had a lower rate (52%)

Strickland S, et al. EHA 2018.

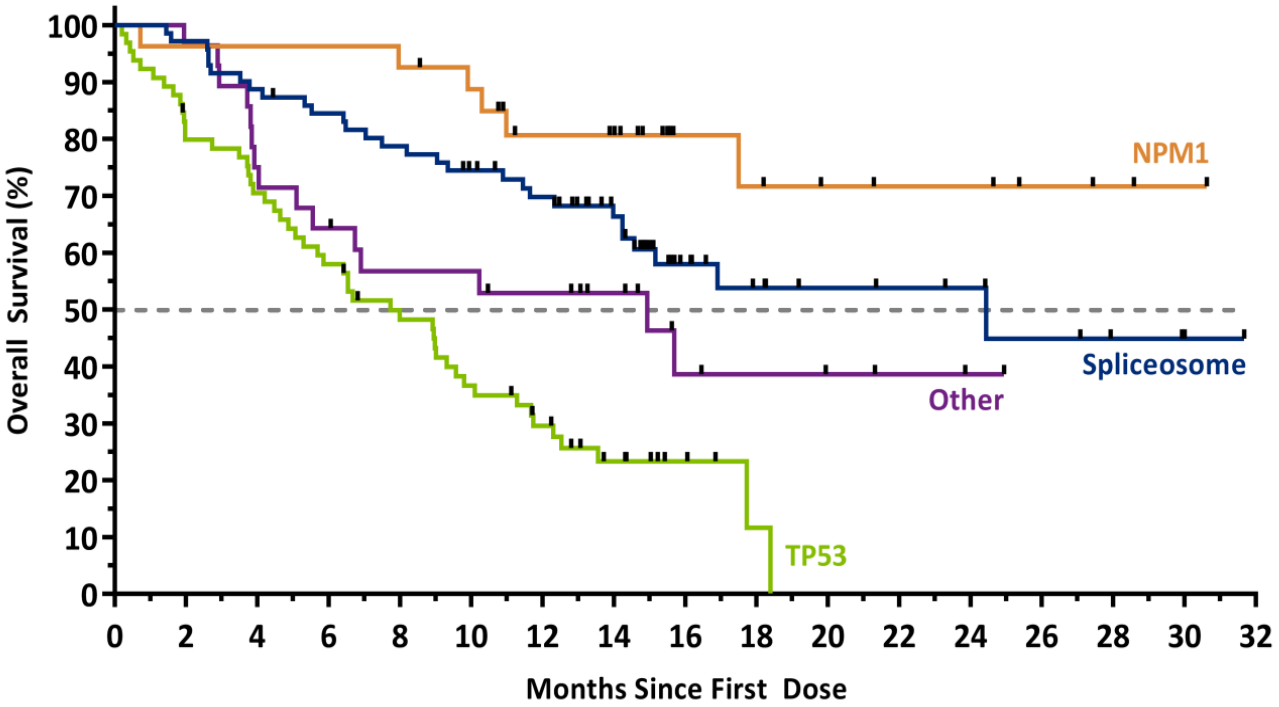
Overall Survival



- At a median time on study of 8.9 months (range, 0.2-31.6), the median overall survival (OS) in all treated patients was 17.5 months (95% CI, 12.3, NR-)
- The estimated 6-month, 1-year, and 2-year OS rates were 80%, 59% and 46%

DiNardo CD, et al. ASCO 2018. Abstract 7042.

Overall Survival by Molecular Subgroup
V + HMA

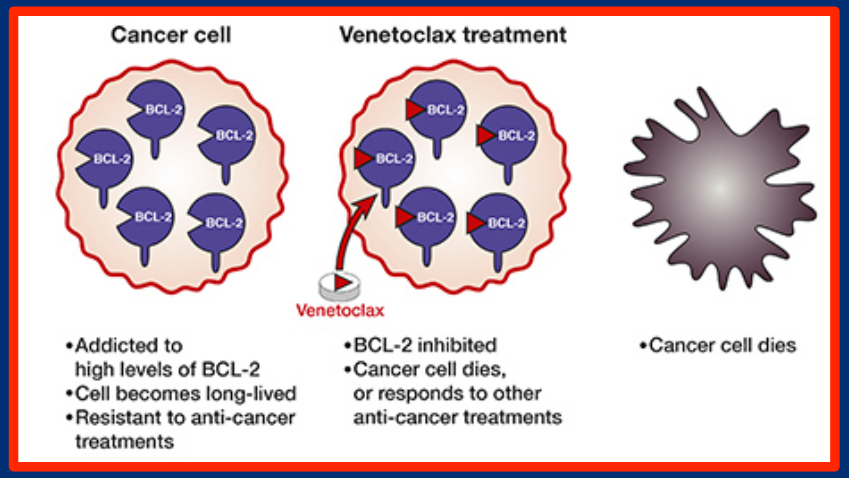


Strickland S, et al. EHA 2018.

Galectin inhibitors

CDK inhibitors

HMA



BH3 mimetics

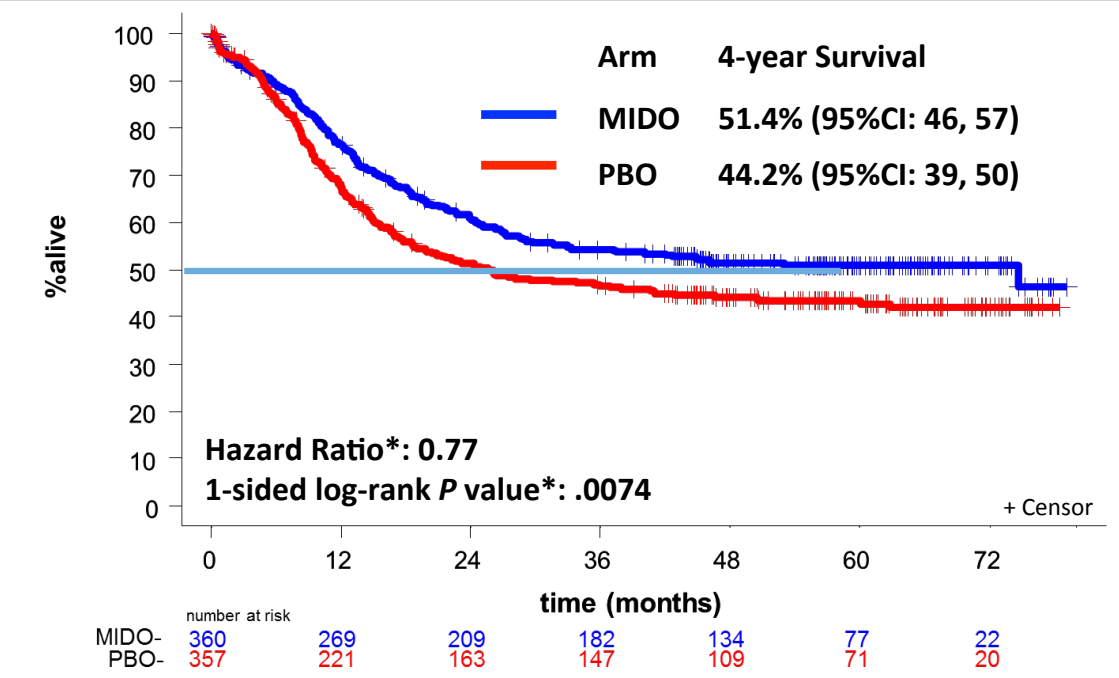
LD-ARA-C

MDM2 antagonists

Alvocidib

Int. CHT

Overall Survival (Primary Endpoint)
23% Reduced Risk of Death in the MIDO Arm

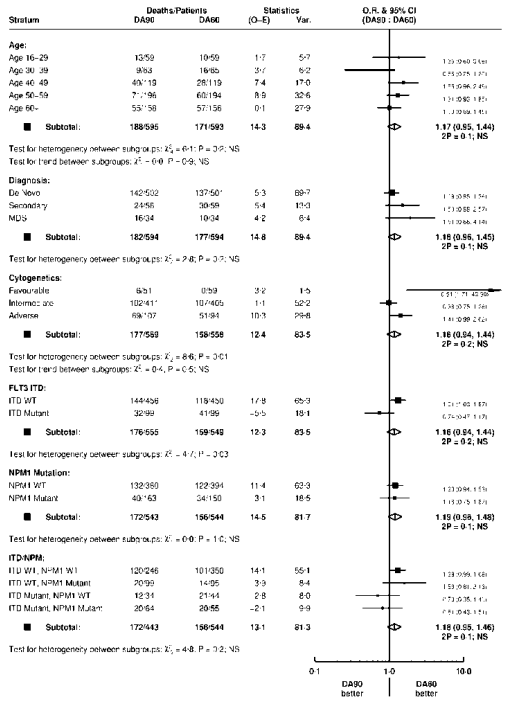


Median OS
MIDO 74.7 (31.7-NE);
PBO 25.6 (18.6-42.9) months

NE, not estimable
***Controlled for *FLT3* subtype (TKD, ITD-Low, ITD-High)**

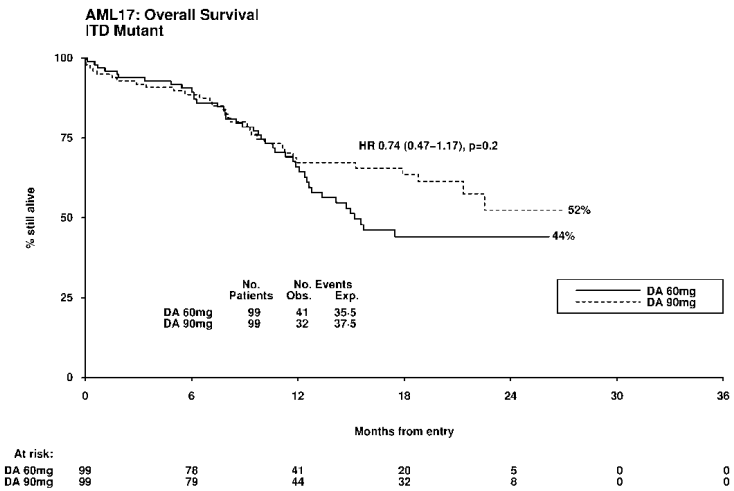
DNR 90 vs 60 mg (NCRI AML17)

Stratified analysis of OS

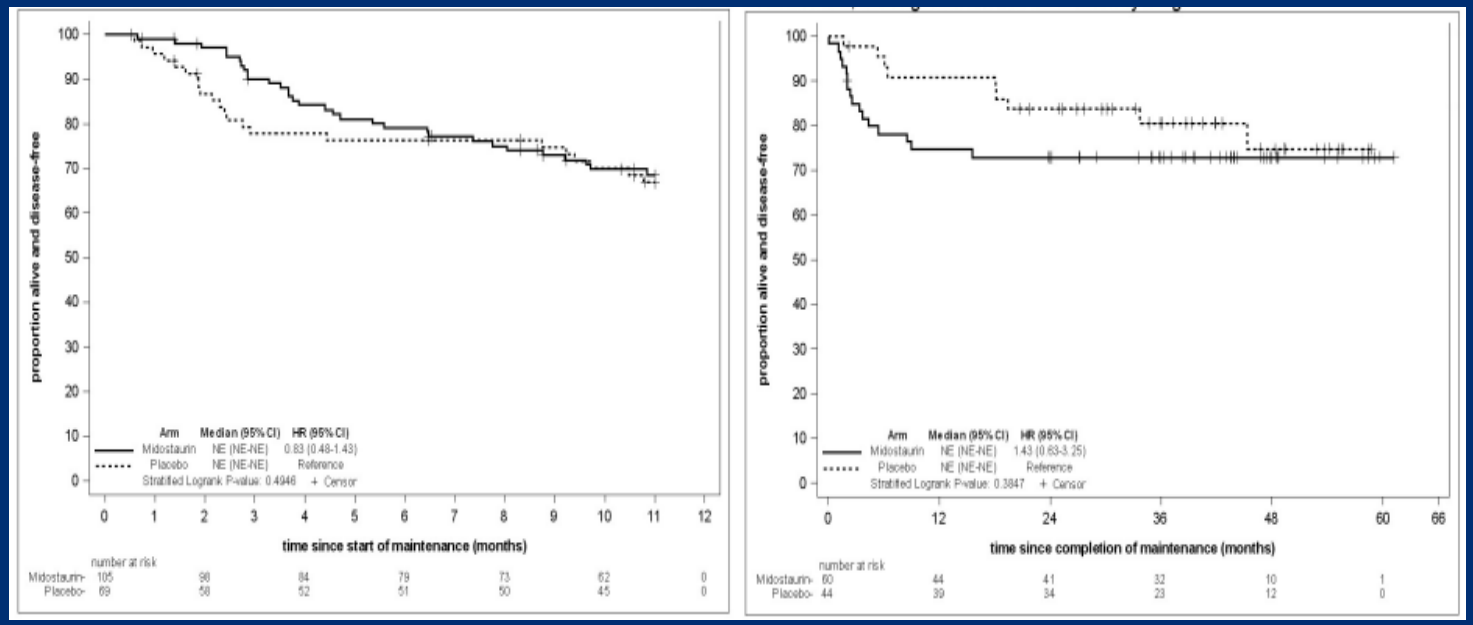


Burnett et al, Blood 2015

FLT3-ITD mutant

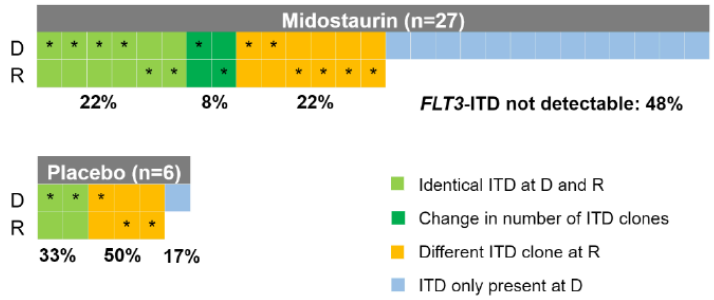


Analysis of Maintenance Therapy and Post-Midostaurin Outcomes in the Ratify Study



Larson RA, ASH 2017 abstr no. 145

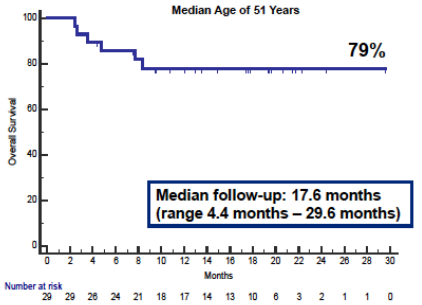
Presence of *FLT*-ITD Clones at Diagnosis and Relapse

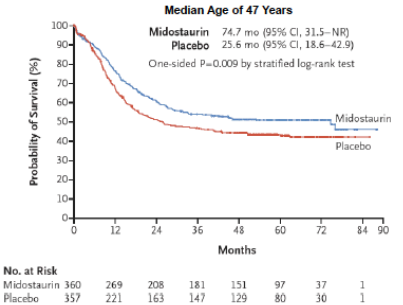


D, diagnosis; R, relapse; *Higher allelic ration

Schmalbrock LK, et al. *Blood*. 2017;130: Abstract 182.

Overall Survival of Patients





Total of six deaths:
- Two refractory (including 1 with complex cytogenetics and mutant *TP53*)
- Two relapsed (both received <1 week of maintenance)
- Two in remission (1 history of cirrhosis with portal hypertension, 1 post HSCT complication)

- **Estimated 1 year OS in Mido arm: ~75%**
- **Estimated 2 year OS in Mido arm: ~60%**

Wang ES, et al. *Blood*. 2017;130: Abstract 566.

91% CR/CRi Patients Achieved *FLT3*-Negative Status After Treatment

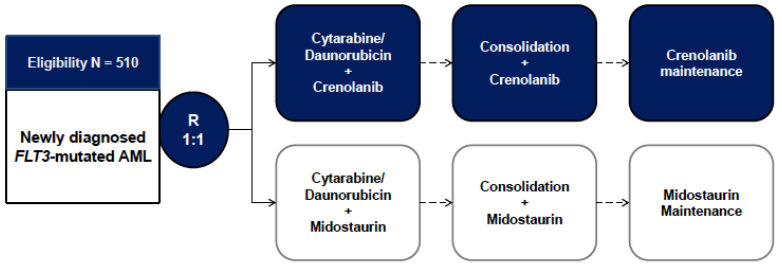
FLT3 Status After Treatment	Status Available (n = 23)
FLT3 negative	21 (91%)
FLT3 positive	2 (9%)

24 patients achieved CR/CRi after standard treatment combined with crenolanib. *FLT3* analysis was performed after induction or consolidation, and *FLT3* data were available in 23 patients.

***FLT3* mutation clearance was seen in 21/23 patients, including patients who had variant *FLT3* mutations**

Wang ES, et al. *Blood*. 2017;130: Abstract 566.

ARO-021: Phase III Comparison of Crenolanib With Midostaurin in Combination With Chemotherapy

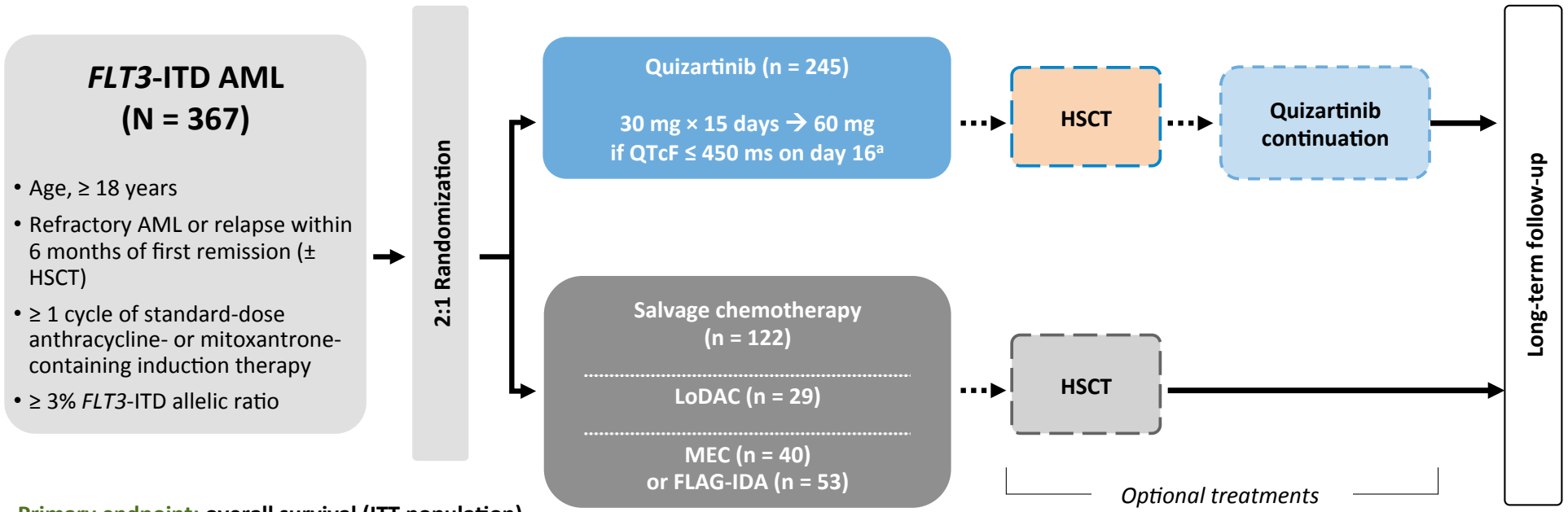


Primary Endpoint
- **Event-free survival**

Secondary Endpoints
- **Overall survival**
- **Relapse-free survival**
- **Composite complete remission rate**
- **Duration of response**

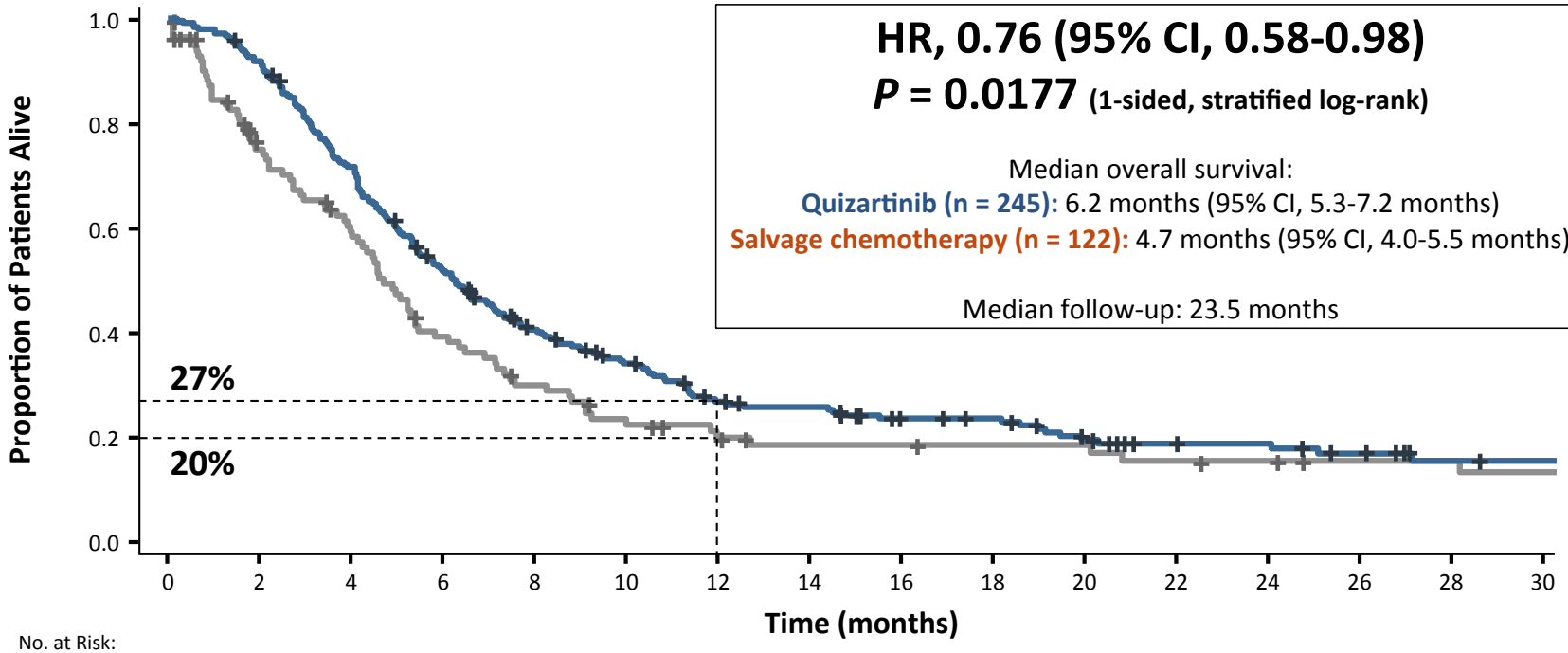
Swaminathan M, et al. *Blood*. 2017;130: Abstract 723.

QuANTUM-R Study Design



Primary endpoint: **overall survival (ITT population)**
Secondary endpoint: **event-free survival (ITT population)**
Select exploratory endpoints: **CRc rate, duration of CRc, and transplant rate**
Enrollment dates: May 2014 (first patient) to September 2017 (last patient)

QuANTUM-R Primary Endpoint: Overall Survival



Cortes JE, et al. EHA abstracts 2018.

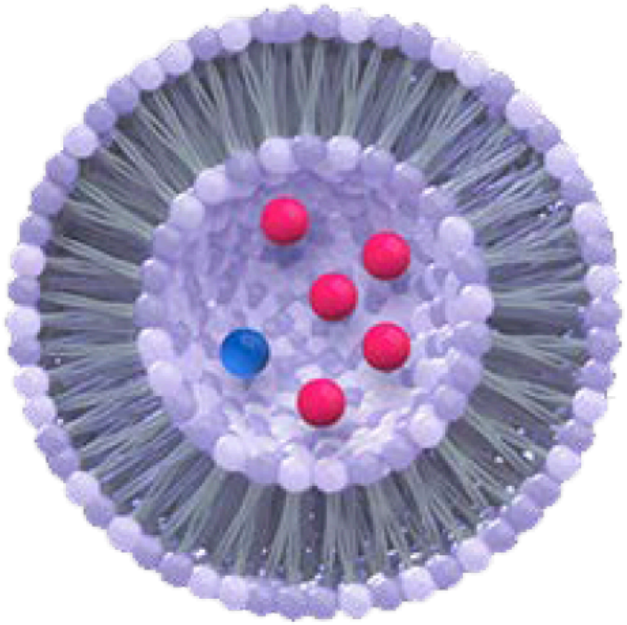
Unanswered questions for FLT3 pos AML

- What about 3 + 7 (IDA-FLAG or HD-DNR)
- What about CD33+ AML (Mylotarg or Midostaurin for CD33+/FLT3+AML)
- What about maintenance ? Is Mido the best choice ?

VYXEOS (CPX-531) 8-3-2017

- Liposome-encapsulated combination of Ara-C and Dauno

- FDA approved for adults with newly-diagnosed therapy-related AML (t-AML), AML with prior history of MDS, or AML with cytogenetic abnormalities diagnostic for MDS

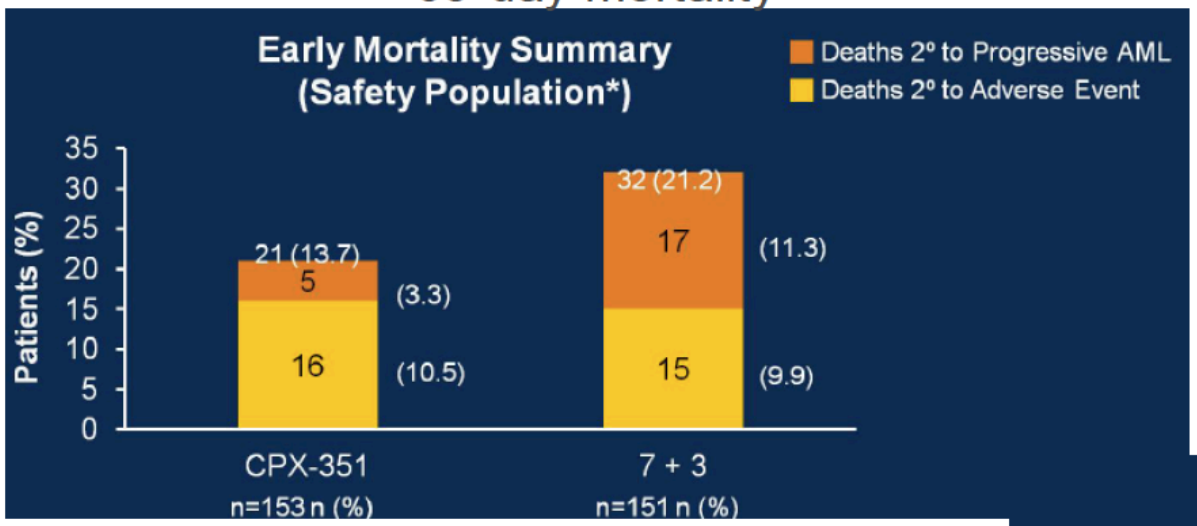


- 100 nm bilamellar liposomes
- 5:1 molar ratio of cytarabine to daunorubicin
- 1 unit = 1.0 mg cytarabine plus 0.44 mg daunorubicin

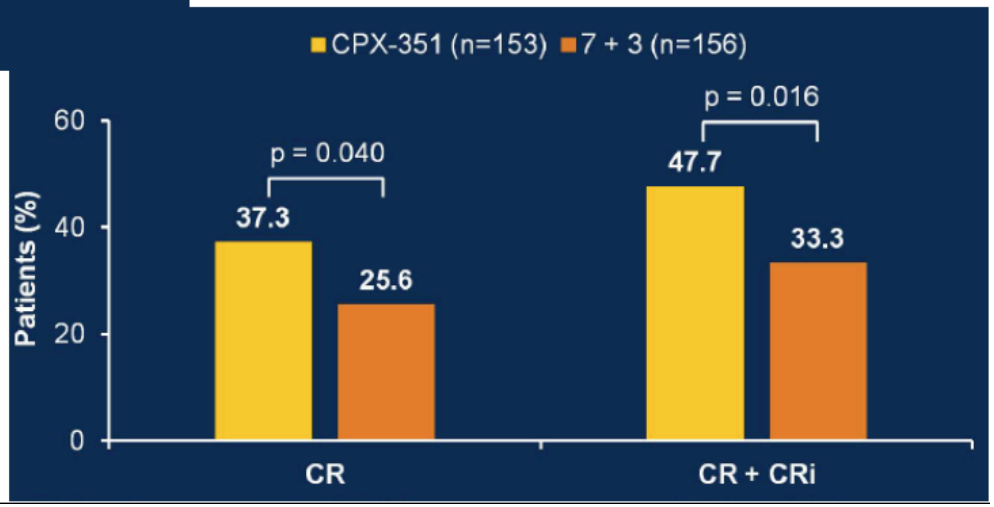
Lancet et al. ASCO Abstract 2016

VYXEOS (CPX-351) IMPROVED 30 AND 60 DAY MORTALITY AND CR RATES

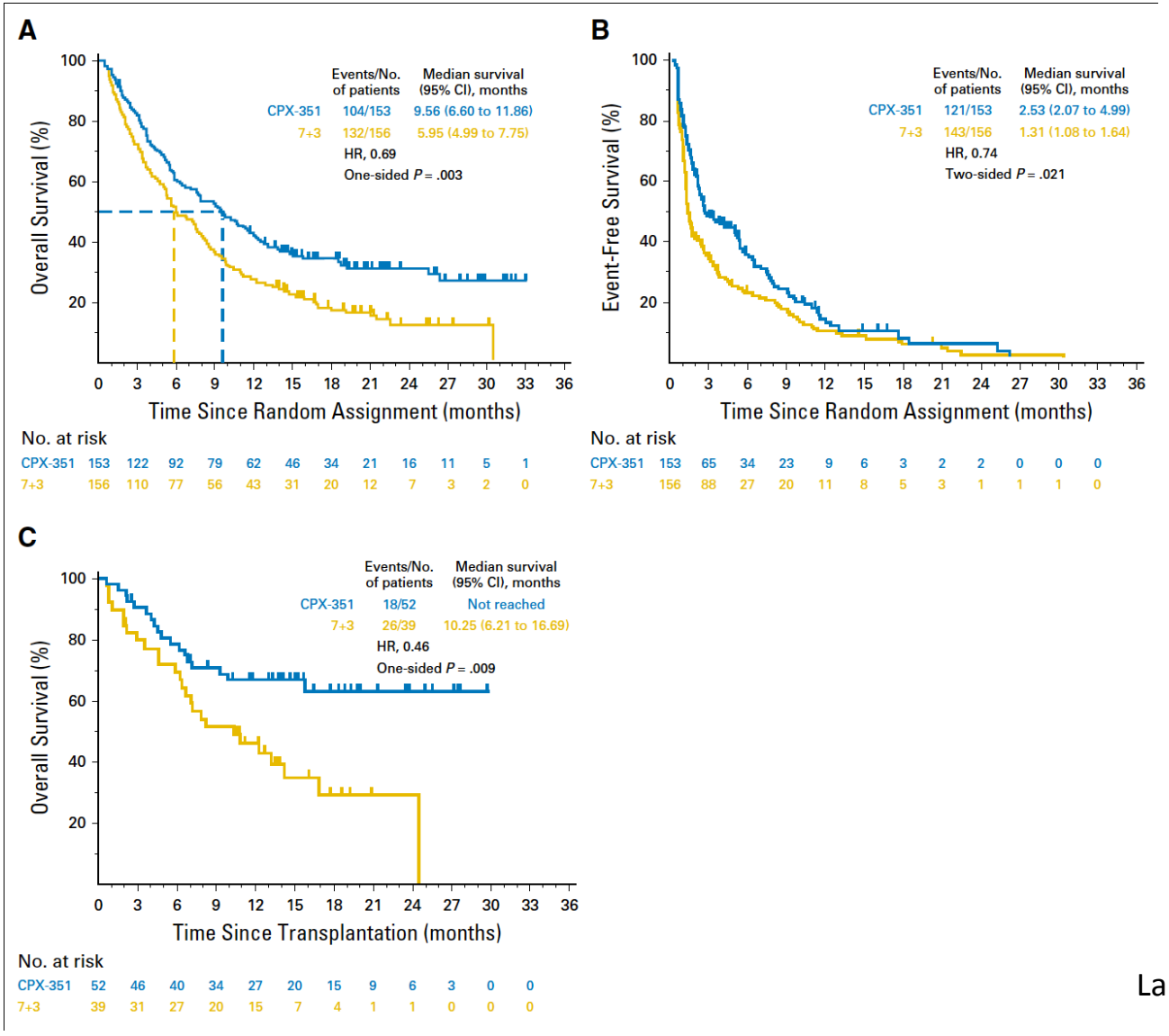
60-day mortality



CR rates



Lancet J, et al. ASCO 2016

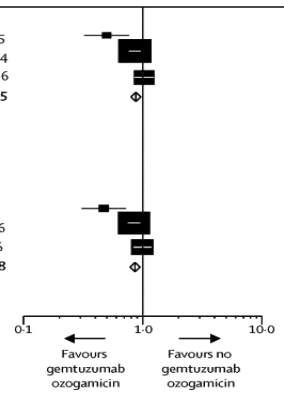


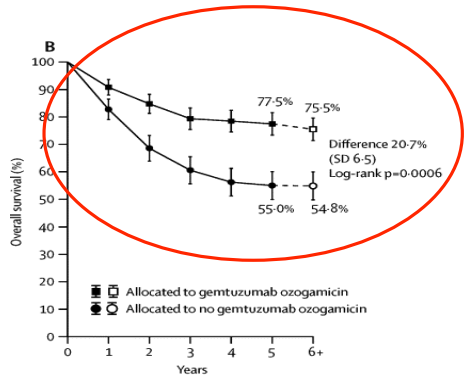
Lancet et al., JCO, 2018

Gemtuzumab Ozogamicin in Induction Therapy
Meta-analysis of 5 Randomized Trials

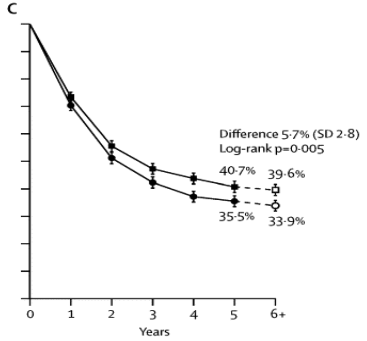
A

	Events/patients		o–e	Variance	OR (95% CI)	p value
	Gemtuzumab ozogamicin group	No gemtuzumab ozogamicin group				
Original coding						
Favourable	32/125	54/126	−14·3	20·5	0·50 (0·32–0·77)	
Intermediate	549/962	596/964	−44·2	284·4	0·86 (0·76–0·96)	
Adverse	223/261	227/256	3·1	110·6	1·03 (0·85–1·24)	
Subtotal	**804/1348**	**877/1346**	**−55·4**	**415·5**	**0·88 (0·79–0·96)**	**0·007**
Test for heterogeneity between subgroups: χ^2=9·6; p=0·008						
Test for trend between subgroups: χ^2=7·8; p=0·005						
Revised MRC coding[12]						
Favourable	30/122	54/124	−15·5	20·6	0·47 (0·31–0·73)	
Intermediate	506/911	559/916	−45·3	264·6	0·84 (0·75–0·95)	
Adverse	260/299	258/284	−1·2	127·6	0·99 (0·83–1·18)	
Subtotal	**796/1332**	**871/1324**	**−61·9**	**412·8**	**0·86 (0·78–0·95)**	**0·002**
Test for heterogeneity between subgroups: χ^2=10·1; p=0·006						
Test for trend between subgroups: χ^2=7·7; p=0·006						

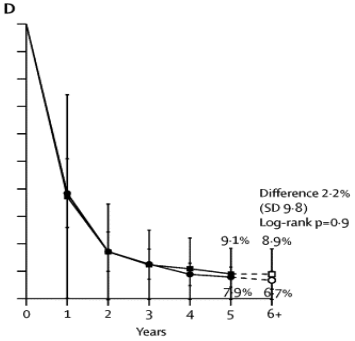




Annual event rates	Years 1–5	Years 6+
Gemtuzumab ozogamicin	5·8% SD 1·1	2·3% SD 1·3
No gemtuzumab ozogamicin	14·1% SD 1·9	0·0% SD 0·0

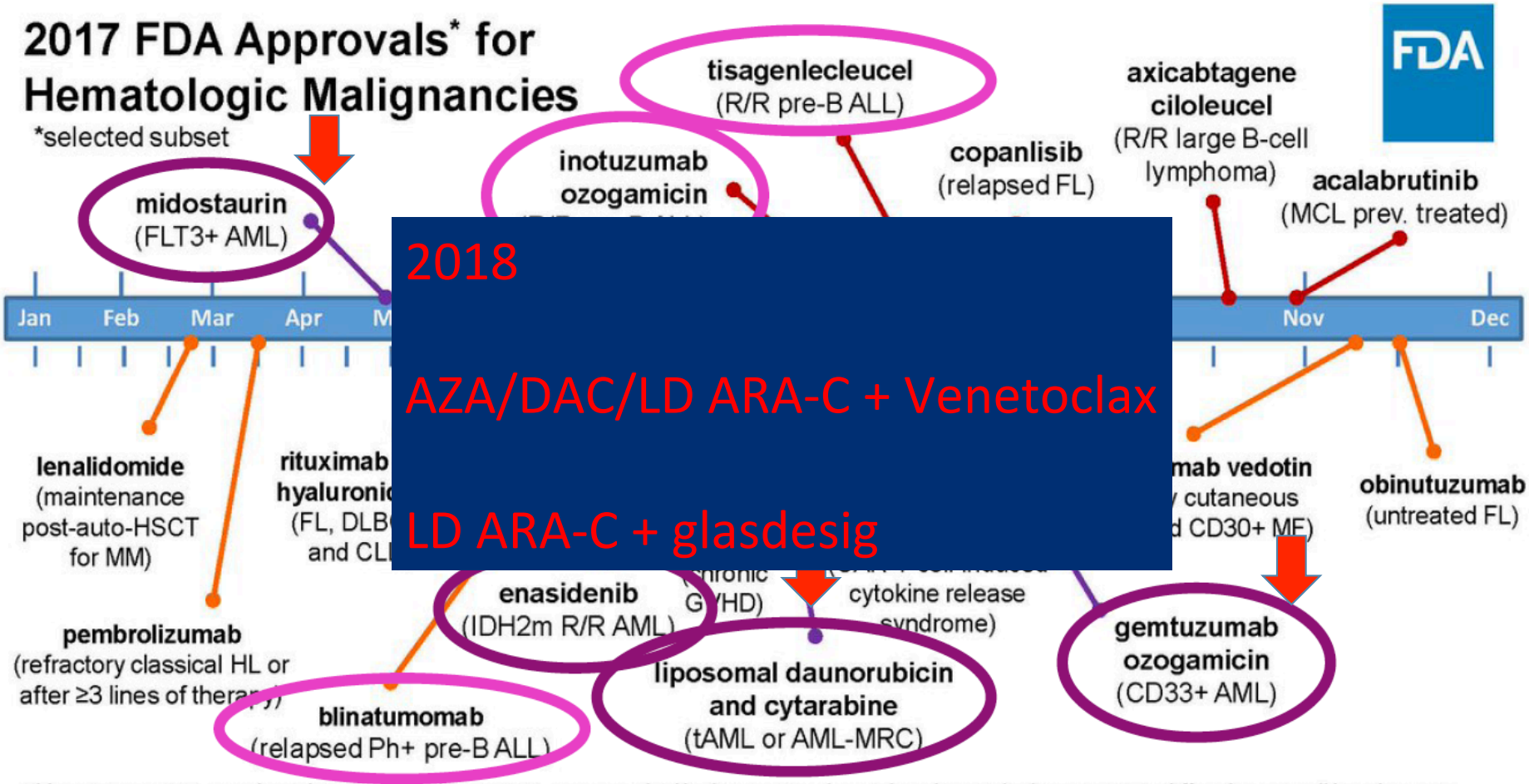


Annual event rates	Years 1–5	Years 6+
Gemtuzumab ozogamicin	22·4% SD 1·0	2·7% SD 0·9
No gemtuzumab ozogamicin	26·2% SD 1·1	4·9% SD 1·3



Annual event rates	Years 1–5	Years 6+
Gemtuzumab ozogamicin	73·8% SD 4·6	2·4% SD 2·4
No gemtuzumab ozogamicin	76·7% SD 4·8	21·1% SD 10·5

Hills RK, et al. *Lancet Oncol.*2014;15(9):986.



Abbreviations: ALCL, anaplastic large cell lymphoma; AML, acute myeloid leukemia; CLL, chronic lymphocytic leukemia; DLBCL, diffuse large B-cell lymphoma; FL, follicular lymphoma; GVHD, graft-versus-host disease; HL, Hodgkin lymphoma; IDH2m, isocitrate dehydrogenase 2 mutated; HSCT, hematopoietic stem cell transplantation; MCL, mantle cell lymphoma; MF, mycosis fungoides; MM, multiple myeloma; MRC, myelodysplasia-related changes; pre-B ALL, B-cell precursor acute lymphoblastic leukemia; R/R, relapsed or refractory; tAML, therapy-related AML

Initial Report of the Beat AML Umbrella Study for Previously Untreated AML: Evidence of Feasibility and Early Success in Molecularly Driven Phase 1 and 2 Studies.

Table 1.0 Treatment Arms

AML Subtype	Drug
CBF	Samalizumab (CD200 Ab) + induction
NPM1 + FLT3-ITD	Entospletinib (Syk inhibitor) + induction (fit) Entospletinib (Syk inhibitor) monotherapy (unfit)
MLL rearranged	Entospletinib (Syk inhibitor)
IDH2 +	Enasidenib
IDH1 +	Ivosidenib + Aza
TP53+	Entospletinib (Syk inhibitor) + Decitabine
TP53 - Complex Karotype (≥ 3 abn)	Entospletinib (Syk inhibitor) + Decitabine
TP53+	Pevonedistat (Nedd8 inhibitor) + Aza
FLT3-ITD+ or FLT3-TKD +	Gilteritinib monotherapy or + Decitabine
Tet2/WTI	BI 836858 (CD33 Ab) + Aza
Marker Negative	BI 836858 (CD33 Ab) + Aza

Burd A, ASH 2018, Abs 559

Figure 1.0 Enrollment Schematic

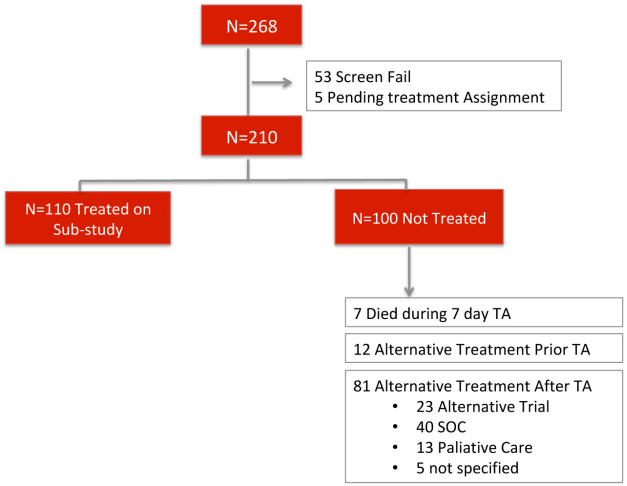
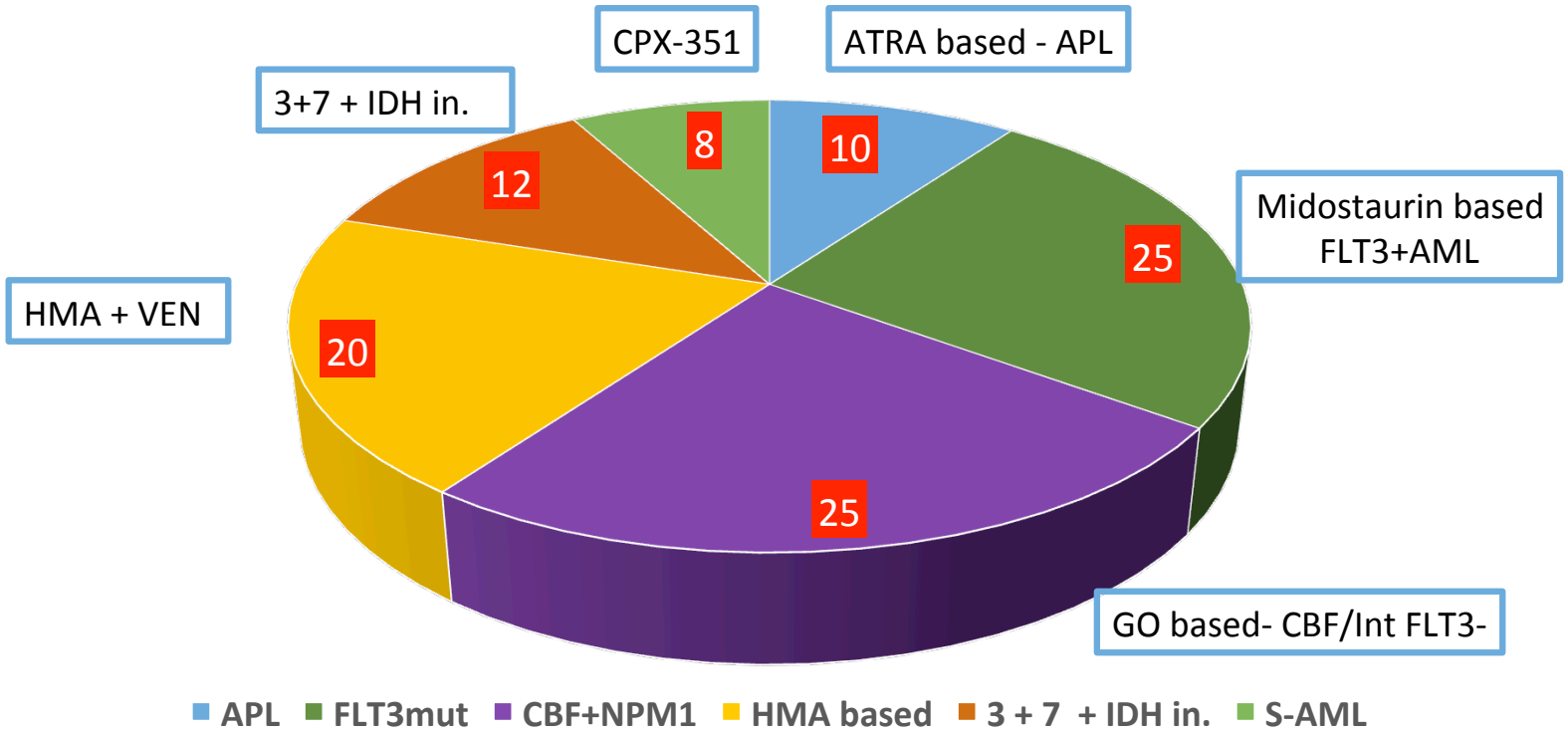


Table 2.0: Patients Assigned to Therapy

Treatment Prioritization	Pts (%) Assigned
Core Binding Factor	3 (1.4)
NPM1+ FLT3 ITD-	26 (12.4)
MLL rearranged	4 (1.9)
IDH2+	25 (11.9)
IDH1+	13 (6.2)
TP53 +	41 (19.5)
TP53 WT/Complex Karyotype (≥ 3 abn)	19 (9.0)
FLT3-ITD or FLT3-TKD+	16 (7.6)
WT1+ or TET2 +	26(12.4)
Marker Negative	37 (17.6)
Total Number Pts	210

Burd A, ASH 2018, Abs 559

AML > 18 years: 2019-2020



No patient will receive classical 3 + 7