Supplemental Table 1. The Summary of Cooperative Group Studies

Group	Study Number	Study Title	Induction	Consolidation
Alliance	10201	A phase III study of daunorubicin and cytarabine +/- G3139 (Genasense |, oblimersen sodium, NSC # 683428, IND #58842), a BCL2 antisense oligonuecleotide, in previously untreated patients with acute myeloid leukemia (AML) >/= 60 years	Cytarabine 100 mg/m2 continuous IV days 1-7, daunorubucin 60 mg/m2 days 1-3. Randomization to G3139 7 mg/kg by continuous IV days 1-10 or no G3139	G3139 7 mg/kg continuous IV days 1-8 and cytarabine 2000 mg/m2 IV days 4-8 or cytarabine alone 2000 mg/m2 IV days 1-5 for 2 cycles
Alliance	10502	Dose escalation and phase II study of bortezomib (IND #58443, NSC #681239) added to standard daunorubicin and cytarabine therapy for patients with previously untreated acute myeloid leukemia age 60-75 years	Bortezomib 1.3 mg/m2 IV days 1, 4, 8, and 11, cytarabine 100 mg/m2 continuous IV days 1 - 7 and daunorubicin 60 mg/m2 IV days 1-3	Bortezomib 0.7, 1 or 1.3 mg/m2 IV days 1, 4, 8, and 11, and cytarabine 2000 g/m2 IV days 1-5 for 2 cycles
Alliance	10801	Phase II study of induction (daunorubicin/cytarabine) and consolidation (high-dose cytarabine) chemotherapy plus dasatinib (NSC #732517, IND #73969) and continuation therapy with dasatinib alone in newly diagnosed patients with core binding factor acute myeloid leukemia (AML)	Cytarabine 200 mg/m2 continuous IV days 1- 7, daunorubicin 60 mg/m2 IV days 1-3 and dasatinib 100 mg/d po days 8-21	Cytarabine 3000 mg/m2 (1000 mg/m2 for age 60 years or older) IV days 1, 3, 5, dasatinib 100 mg po daily days 6-26 x 4 cycles. Thereafter, continuation with dasatinib 100 mg po daily for 12 months
Alliance	11001	A phase II study incorporating sorafenib (IND 69896, NSC 724772) into the therapy of patients age >/= 60 years with FLT3 mutated acute myeloid leukemia	Cytarabine 100 mg/m2 continuous IV days 1-7, daunorubicin 60 mg/m2 IV days 1-3 and sorafenib 400 mg po twice daily days 1-7	Consolidation 1 and 2. cytarabine 2000 mg/m2/d IV days 1 - 5 and sorafenib 400 mg po twice daily days 1- 28 for 28 day cycles. Continuation with sorafenib 400 mg po twice daily for 12 cycles of 28 days
Alliance	11002	A randomized phase II trial of decitabine-based induction strategies for patients >/= 60 years old with acute myeloid leukemia	Decitabine 20 mg/m2 IV days 1-10 x 2-4 cycles every 28 days. Randomized to bortezomib 1.3 mg/m2 SC day 1, 4, 8, and 11.	Decitabine 20 mg/m2 IV days 1-5 q 28 days. Bortezomib treated patients receive bortezomib 1.3 mg/m2/day SC day 1. No limit on number of cycles.

Supplemental Table 2. Cytogenetics Risk Groups

Cytogenetics Risk Groups	Alliance (N=52)	ECOG-ACRIN (N=135)	SWOG (N=24)	CIBMTR (N=431)
N	45	91	14	416
Favorable	11 (24%)	6 (7%)	0 (0%)	7 (1.7%)
Intermediate	26 (58%)	53 (58%)	9 (64%)	250 (60%)
Poor	8 (18%)	32 (35%)	5 (36%)	159 (38%)
Missing	7	44	10	15

Supplemental Table 3. Selection for AlloHCT and CT Populations

Selection table for alloHCT population	Excluded	Included
INCLUSION:		
1st allo-HCT for AML between 2008 and 2012		4555
Age between 60 and 75	3699	856
APL	1	855
CR1 prior to HCT	PIF (n=118); CR2 (n=131) ≥CR3 (n=13);Relapse (n=103)	490
HLA-identical sibling or unrelated donor	Other related (n=20) Twin (n=6); Missing (n=1)	463
EXCLUSION:		
No consent	12	451
Incomplete research form	11	440
Missing date of CR1	9	431

Selection table for Alliance CT population	Excluded	Included
INCLUSION:		
Dataset from Alliance		378
Age between 60 and 75	112	266
Complete response achieved	99	167
Received consolidation therapy	78	89
EXCLUSION:		
Subsequent HCTs	37	52

Selection table for SWOG CT population	Excluded	Included
INCLUSION:		
Dataset from SWOG		91
EXCLUSION:		
Subsequent HCTs	6	85
Age not between 60-75	48	37
Missing consolidation therapy start date	13	24

Selection table for ECOG-ACRIN CT population	Excluded	Included
INCLUSION:		
Dataset from ECOG-ACRIN		199
EXCLUSION:		
Subsequent HCTs	1	198

Selection table for ECOG-ACRIN CT population	Excluded	Included
Age not between 60-75	36	162
Missing consolidation therapy start date	27	135

Abbreviations: alloHCT: allogeneic hematopoietic cell transplantation, CT: chemotherapy consolidation, AML: acute myeloid leukemia, APL: acute promyelocytic leukemia, CR1: first complete remission, HCT: hematopoietic cell transplantation, PIF: primary induction failure, HLA: human leukocyte antigen, SWOG: Southwest Oncology Group, ECOG-ACRIN: Eastern Cooperative Oncology Group-American College of Radiology Imaging Network