



L'EMATOLOGIA "SERÀGNOLI"  
E LA SCUOLA EMATOLOGICA BOLOGNESE:  
UNA STORIA DI 50 ANNI

# Leucemia Mieloide Acuta Stato dell'Arte

Adriano Venditti

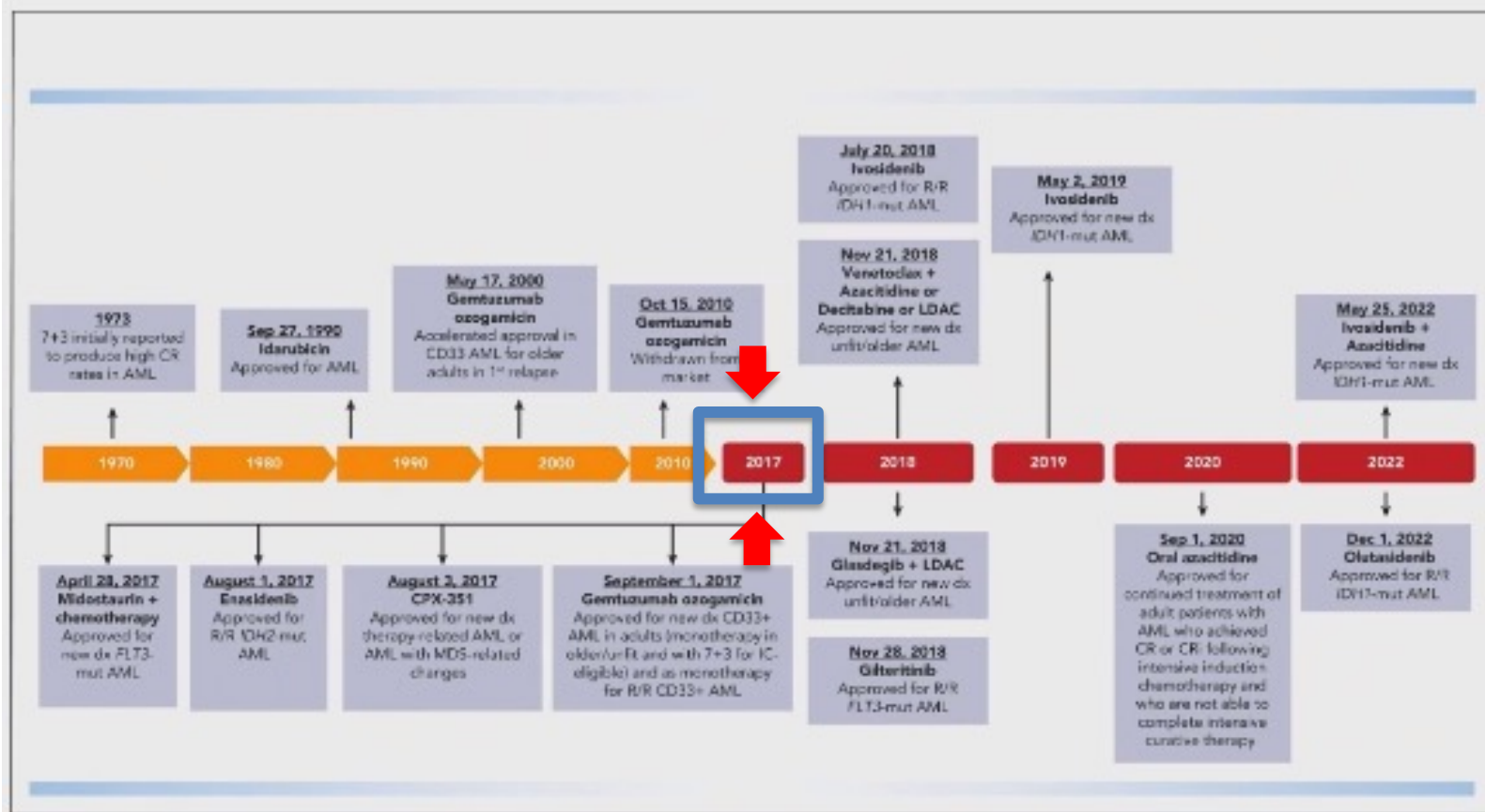
*Fondazione Policlinico Tor Vergata*

*Università Tor Vergata*



## Disclosures of Adriano Venditti

	Research Funding	Consultancy	Invited Speaker
<b>BMS-Celgene</b>		X	X
<b>AstraZeneca</b>		X	
<b>Pfizer</b>		X	X
<b>Jazz Pharmaceuticals</b>	X	X	X
<b>Astellas</b>		X	X
<b>Servier</b>		X	X
<b>Beigene</b>		X	
<b>Abbvie</b>		X	X
<b>Kyte-Gilead</b>		X	X
<b>Steamline-Menarini</b>		X	X
<b>Janssen</b>		X	X
<b>Glycostem</b>		X	
<b>Laboratoires Delbert</b>		X	
<b>Novartis</b>		X	



**July 2023**  
**Quizartinib**  
Approved for  
new dx  
FLT3-mut AML

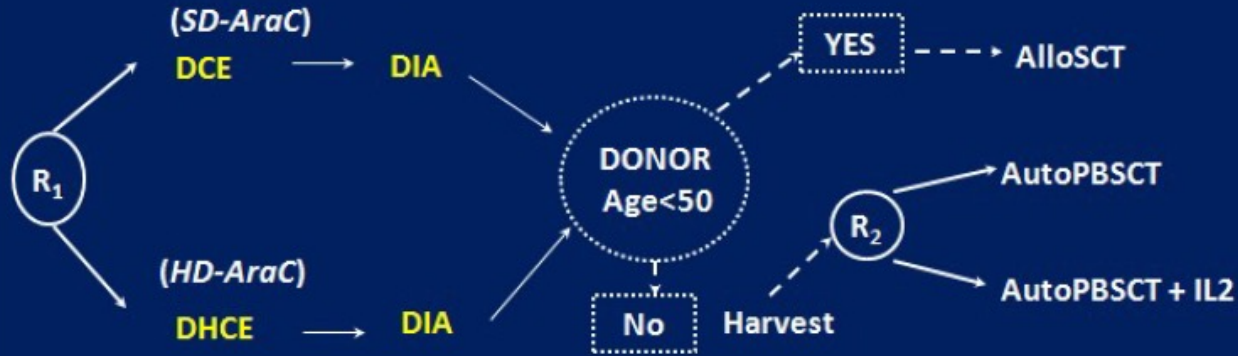


# 1970-2017

## «7+3»: Therapeutic Issues

- DNR dose in induction
- Which anthracycline in induction
- ARAC dosage (induction and consolidation)
- How many consolidation courses and
- Auto-HSCT vs HDARAC

# Which ARaC dosage in induction?



Dauno : 50 mg/m<sup>2</sup> i.v, D 1,3,5

SD-AraC (100 mg/m<sup>2</sup> c.i, D 1-10)

Etoposide : 50 mg/m<sup>2</sup> i.v, D 1-5

vs HD-AraC (3 g/m<sup>2</sup>/12 hrs i.v, D 1, 3, 5, 7)

Dauno : 50 mg/m<sup>2</sup> i.v, D 4-6

ID-AraC : 500 mg/m<sup>2</sup>/12 hrs i.v, D 1-6

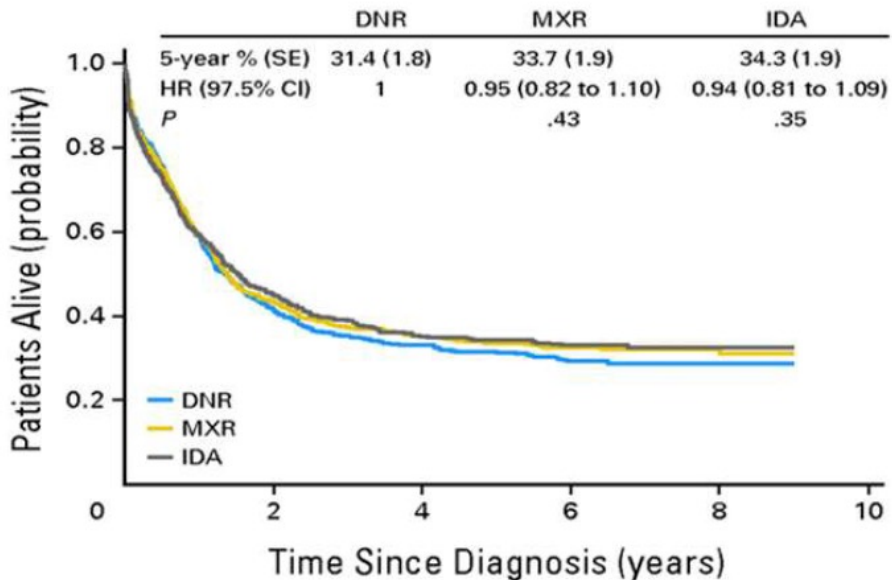
IL2 : 4 x 10<sup>6</sup> IU/m<sup>2</sup> s.c, D1 + 8 x 10<sup>6</sup> IU/m<sup>2</sup> s.c, D2-D5, every 4 weeks, for 1 year

Willemze R et al, JCO 2012



# Which Anthracycline in induction?

## EORTC-GIMEMA AML-10

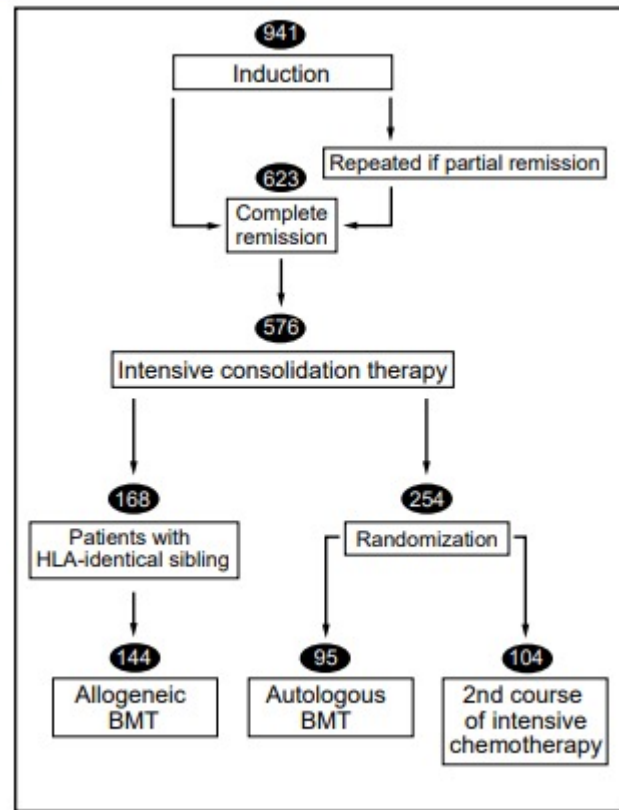


**DNR 50x3**  
**MXR 12x3**  
**IDA 10x3**

Mandelli et al, JCO 2009

## AUTOLOGOUS OR ALLOGENEIC BONE MARROW TRANSPLANTATION COMPARED WITH INTENSIVE CHEMOTHERAPY IN ACUTE MYELOGENOUS LEUKEMIA

ROBERT A. ZITTOUN, M.D., FRANCO MANDELLI, M.D., ROEL WILLEMZE, M.D., THEO DE WITTE, M.D., BORIS LABAR, M.D., LUIGI RESEGOTTI, M.D., FRANCO LEONI, M.D., EUGENIO DAMASIO, M.D., GIUSEPPE VISANI, M.D., GIUSEPPE PAPA, M.D.,\* FRANCESCO CARONIA, M.D., MARCEL HAYAT, M.D., PIERRE STRYCKMANS, M.D., BRUNO ROTOLI, M.D., PIETRO LEONI, M.D., MARC E. PEETERMANS, M.D., MURIELLE DARDENNE, B.S., MARIA LUCE VEGNA, M.D., MARIA CONCETTA PETTI, M.D., GABRIEL SOLBU, M.S., AND STEFAN SUCIU, M.S., FOR THE EUROPEAN ORGANIZATION FOR RESEARCH AND TREATMENT OF CANCER (EORTC) AND THE GRUPPO ITALIANO MALATTIE EMATOLOGICHE MALIGNHE DELL'ADULTO (GIMEMA) LEUKEMIA COOPERATIVE GROUPS†

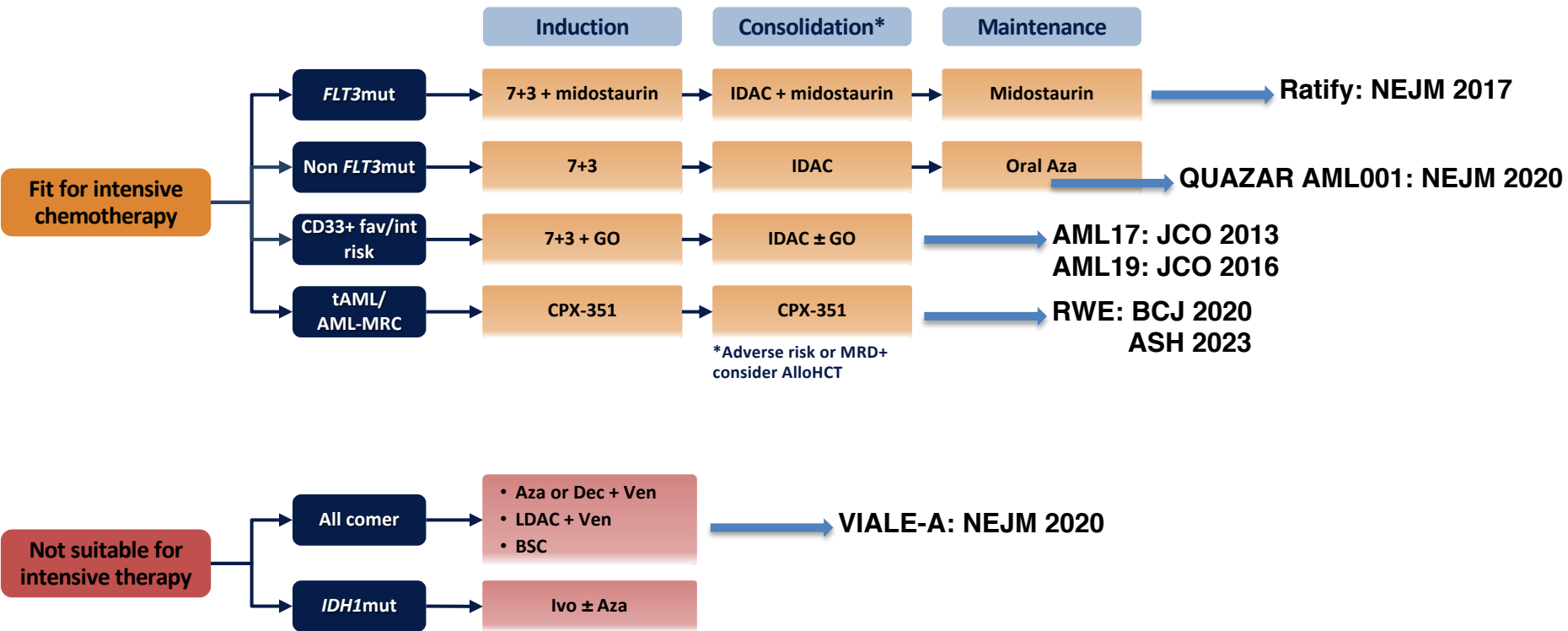


*N Engl J Med* 1995; 332:217-23



# 2022 ELN Guidelines

## Recommended Therapy for AML Patients



Döhner H, et al. Blood. 2022 Jul 7;blood.2022016867. doi: 10.1182/blood.2022016867. Online ahead of print.





# 2021 Update on MRD in acute myeloid leukemia: a consensus document from the European LeukemiaNet MRD Working Party

Michael Heuser,<sup>1</sup> Sylvie D. Freeman,<sup>2</sup> Gert J. Ossenkoppele,<sup>3</sup> Francesco Buccisano,<sup>4</sup> Christopher S. Hourigan,<sup>5</sup> Lok Lam Ngai,<sup>3</sup> Jesse M. Tetters,<sup>3</sup> Costa Bachas,<sup>3</sup> Constance Baer,<sup>6</sup> Marie-Christine Béné,<sup>7</sup> Veit Bücklein,<sup>8</sup> Anna Czyz,<sup>9</sup> Barbara Denys,<sup>10</sup> Richard Dillon,<sup>11</sup> Michaela Feuring-Buske,<sup>12</sup> Monica L. Guzman,<sup>13</sup> Torsten Haferlach,<sup>6</sup> Lina Han,<sup>14</sup> Julia K. Herzig,<sup>12</sup> Jeffrey L. Jorgensen,<sup>15</sup> Wolfgang Kern,<sup>6</sup> Marina Y. Konopleva,<sup>14</sup> Francis Lacombe,<sup>16</sup> Marta Libura,<sup>17</sup> Agata Majchrzak,<sup>18</sup> Luca Maurillo,<sup>4</sup> Yishai Ofran,<sup>19</sup> Jan Philippe,<sup>10</sup> Adriana Plesa,<sup>20</sup> Claude Preudhomme,<sup>21</sup> Farhad Ravandi,<sup>14</sup> Christophe Roumier,<sup>21</sup> Marion Subklewe,<sup>8</sup> Felicitas Thol,<sup>1</sup> Arjan A. van de Loosdrecht,<sup>3</sup> Bert A. van der Reijden,<sup>22</sup> Adriano Venditti,<sup>4</sup> Agnieszka Wierzbowska,<sup>23</sup> Peter J. M. Valk,<sup>24</sup> Brent L. Wood,<sup>25</sup> Roland B. Walter,<sup>26</sup> Christian Thiede,<sup>27,28</sup> Konstanze Döhner,<sup>12</sup> Gail J. Roboz,<sup>13</sup> and Jacqueline Cloos<sup>3</sup>



## Level of minimal residual disease after consolidation therapy predicts outcome in acute myeloid leukemia

Adriano Venditti, Francesco Buccisano, Giovanni Del Poeta, Luca Maurillo, Anna Tamburini, Christina Cox, Alessandra Battaglia, Gianfranco Catalano, Beatrice Del Moro, Laura Cudillo, Massimiliano Postorino, Mario Masi, and Sergio Amadori

*Blood.* 2000;96:3948-3952

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JOURNAL OF CLINICAL ONCOLOGY

ORIGINAL REPORT

## Toward Optimization of Postremission Therapy for Residual Disease—Positive Patients With Acute Myeloid Leukemia

Luca Maurillo, Francesco Buccisano, Maria Ilaria Del Principe, Giovanni Del Poeta, Alessandra Spagnoli, Paola Panetta, Emanuele Ammatuna, Benedetta Neri, Licia Ottaviani, Chiara Sarlo, Daniela Venditti, Micol Quaresima, Raffaella Cerretti, Manuela Rizzo, Paolo de Fabritiis, Francesco Lo Coco, William Arcese, Sergio Amadori, and Adriano Venditti

## Prognostic and therapeutic implications of minimal residual disease detection in acute myeloid leukemia

Francesco Buccisano,<sup>1</sup> Luca Maurillo,<sup>1</sup> Maria Ilaria Del Principe,<sup>1</sup> Giovanni Del Poeta,<sup>1</sup> Giuseppe Sconocchia,<sup>2</sup> Francesco Lo-Coco,<sup>1,3</sup> William Arcese,<sup>1</sup> Sergio Amadori,<sup>1</sup> and Adriano Venditti<sup>1</sup>

<sup>1</sup>Hematology, Fondazione Policlinico Tor Vergata, Rome, Italy; <sup>2</sup>Institute of Translational Pharmacology, Department of Medicine, CNR, Rome, Italy; and <sup>3</sup>Laboratorio di Neuro-Oncoematologia, Fondazione Santa Lucia, Rome, Italy

*Blood;*2012 119: 332-341

### CLINICAL TRIALS AND OBSERVATIONS

## GIMEMA AML1310 trial of risk-adapted, MRD-directed therapy for young adults with newly diagnosed acute myeloid leukemia

Adriano Venditti,<sup>1,2</sup> Alfonso Piciocchi,<sup>3</sup> Anna Candoni,<sup>4</sup> Lorella Melillo,<sup>5</sup> Valeria Calafiore,<sup>6</sup> Roberto Cairoli,<sup>7</sup> Paolo de Fabritiis,<sup>8</sup> Gabriella Storti,<sup>9</sup> Prassede Salutati,<sup>10</sup> Francesco Lanza,<sup>11</sup> Giovanni Martinelli,<sup>12,13</sup> Mario Luppi,<sup>14</sup> Patrizio Mazza,<sup>15</sup> Maria Paola Martelli,<sup>16</sup> Antonio Cuneo,<sup>17</sup> Francesco Albano,<sup>18</sup> Francesco Fabbiano,<sup>19</sup> Agostino Tafuri,<sup>20</sup> Anna Chierichini,<sup>21</sup> Alessia Tieghi,<sup>22</sup> Nicola Stefano Fracchiolla,<sup>23</sup> Debora Capelli,<sup>24</sup> Robin Foà,<sup>25</sup> Caterina Alati,<sup>26</sup> Edoardo La Sala,<sup>3</sup> Paola Fazi,<sup>3</sup> Marco Vignetti,<sup>3</sup> Luca Maurillo,<sup>2</sup> Francesco Buccisano,<sup>1,2</sup> Maria Ilaria Del Principe,<sup>1,2</sup> Maria Irno-Consalvo,<sup>1</sup> Tiziana Ottone,<sup>1</sup> Serena Lavorgna,<sup>1</sup> Maria Teresa Voso,<sup>1,2</sup> Francesco Lo-Coco,<sup>1,2</sup> William Arcese,<sup>1,2</sup> and Sergio Amadori<sup>3</sup>

*Blood.* 2019;134(12):935-945



## Measurable residual disease (MRD) in acute myeloid leukemia (AML): Are we ready for MRD based treatment decision-making?

### Chairs



**Sylvie Freeman**

University of Birmingham, UK  
(Birmingham, United Kingdom)

### Presentation (Session Outline)



PRESENTATION ID p113-1

**Multicolor flow cytometry: Where are we in 2024**

Francesco Buccisano University Tor Vergata of Rome (Rome, Italy)



PRESENTATION ID p113-2

**Molecular methods for MRD monitoring**

Richard Dillon Kings College London (London, United Kingdom)



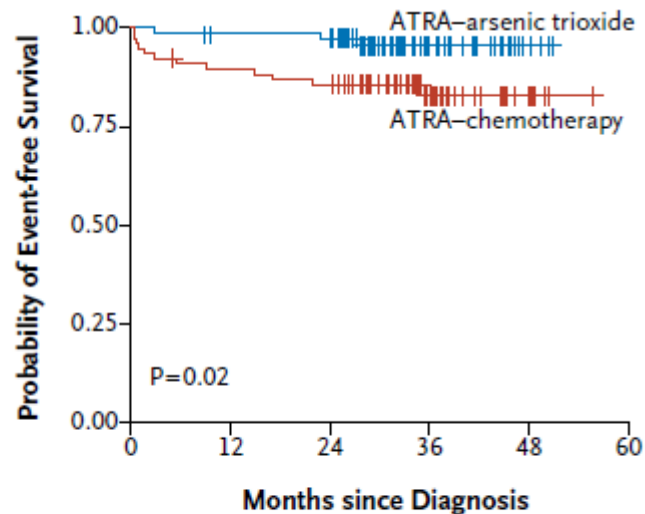
PRESENTATION ID p113-3

**Clinical implementation of MRD in AML**

Michael Heuser Hannover Medical School (Hannover, Germany)

## Retinoic Acid and Arsenic Trioxide for Acute Promyelocytic Leukemia

F. Lo-Coco, G. Avvisati, M. Vignetti, C. Thiede, S.M. Orlando, S. Iacobelli, F. Ferrara, P. Fazi, L. Cicconi, E. Di Bona, G. Specchia, S. Sica, M. Divona, A. Levis, W. Fiedler, E. Cerqui, M. Breccia, G. Fioritoni, H.R. Salih, M. Cazzola, L. Melillo, A.M. Carella, C.H. Brandts, E. Morra, M. von Lilienfeld-Toal, B. Hertenstein, M. Wattad, M. Lübbert, M. Hänel, N. Schmitz, H. Link, M.G. Kropp, A. Rambaldi, G. La Nasa, M. Luppi, F. Ciceri, O. Finizio, A. Venditti, F. Fabbiano, K. Döhner, M. Sauer, A. Ganser, S. Amadori, F. Mandelli, H. Döhner, G. Ehninger, R.F. Schlenk, and U. Platzbecker for Gruppo Italiano Malattie Ematologiche dell'Adulto, the German–Austrian Acute Myeloid Leukemia Study Group, and Study Alliance Leukemia

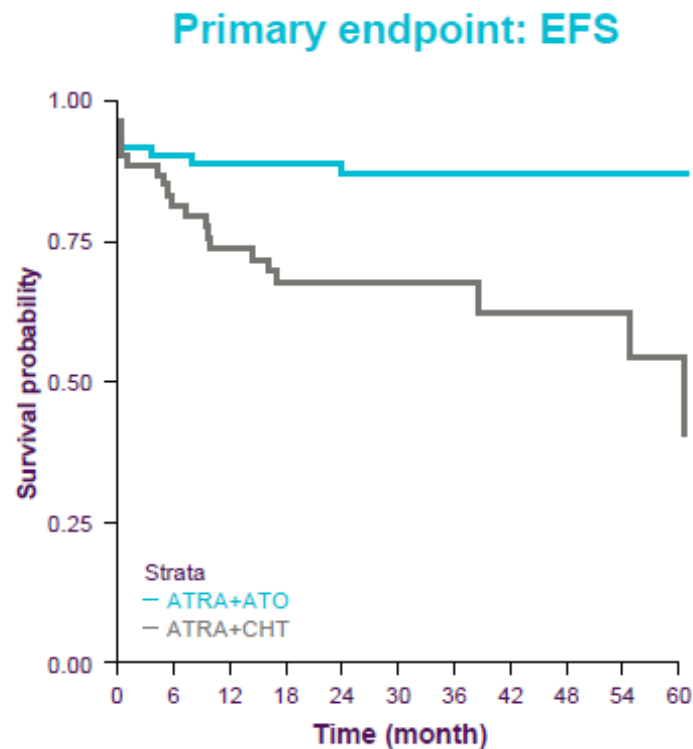


### No. at Risk

ATRA-arsenic trioxide	76	73	72	28	5
ATRA-chemotherapy	77	68	65	27	7



First results of the Apollo trial: A randomized Phase III study to compare ATO combined with ATRA versus standard AIDA regimen for patients with newly diagnosed, high-risk acute promyelocytic leukaemia



Platzbecker U, et al. Presented at EHA, 13-16 June 2024. Oral presentation S102.



2017-2024

## New agents....new questions

- VEN+HMA vs iCHT
- Combination of new agents with iCHT
- Triplets
- Role of MRD in medium intensity therapy
- New agents and classifications