



Sindromi Mielodisplastiche ad alto rischio: terapia e indicazioni al trapianto

Antonella Poloni

Clinica di Ematologia, AOU delle Marche – Università Politecnica Marche, Ancona

Terapia MDS: Obiettivi

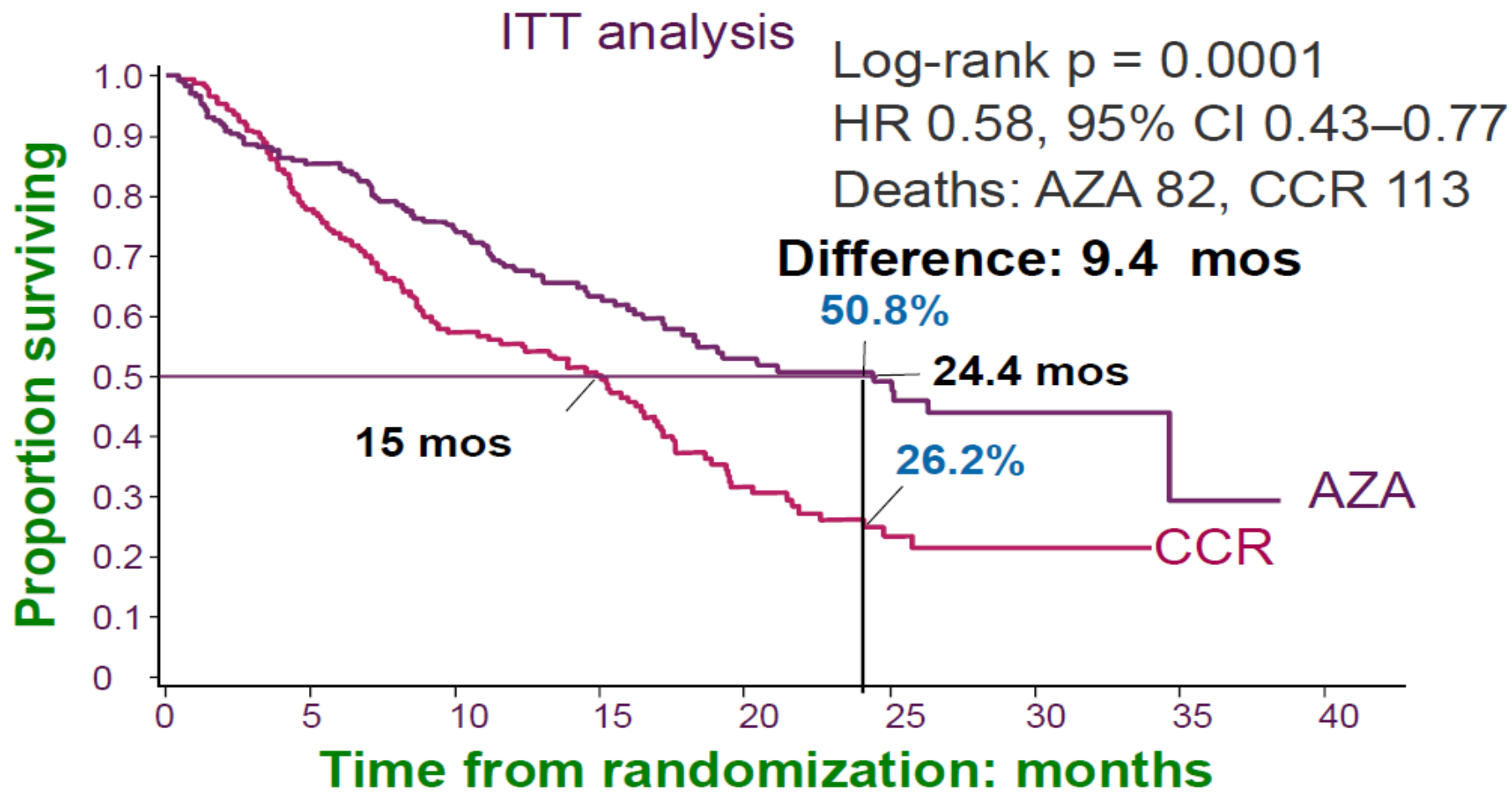
- Migliorare i sintomi (agire sulle citopenie) e prevenire le complicanze
- Prolungare la sopravvivenza
- Mantenere / migliorare la qualità di vita

Sindromi Mielodisplastiche ad alto rischio

Obiettivi: Prolungare la sopravvivenza ed impedire la progressione in LAM

- AZACITIDINA
- TRAPIANTO ALLOGENICO DI CSE
Unica terapia curativa
- TRIALS CLINICI

AZACITIDINA NELLE MDS AD ALTO RISCHIO



CI, confidence interval; ITT, intention-to-treat.

Fenaux P, et al. Lancet Oncol. 2009;10:223-32.

Tossicità del trattamento con AZACITIDINA

Table 2 Most common¹ adverse events (AEs) with azacitidine

Adverse event ²	Percent of patients			
	AZA-001 (N = 175)		CALGB 9221 (N = 150)	
	Any grade	Grade 3/4	Any grade	Grade 3/4
Patients with at least 1 individual AE occurring in ≥ 20% of patients in the azacitidine group in AZA-001	97.7	80.0	100.0	92.7
Anemia	51.4	13.7	74.0	60.7
Neutropenia	65.7	61.1	34.0	24.0
Thrombocytopenia	69.7	58.3	68.7	56.0
Constipation	50.3	1.1	39.3	3.3
Diarrhea	21.7	0.6	40.0	3.3
Nausea	48.0	1.7	67.3	5.3
Vomiting	26.9	0	48.0	2.7
Fatigue	24.0	3.4	47.3	5.3
Injection-site erythema	42.9	0	33.3	0.7
Injection-site reaction	29.1	0.6	3.3	0
Pyrexia	30.3	4.6	51.3	2.0

¹Greater than or equal to 20% of azacitidine-treated patients in AZA-001.

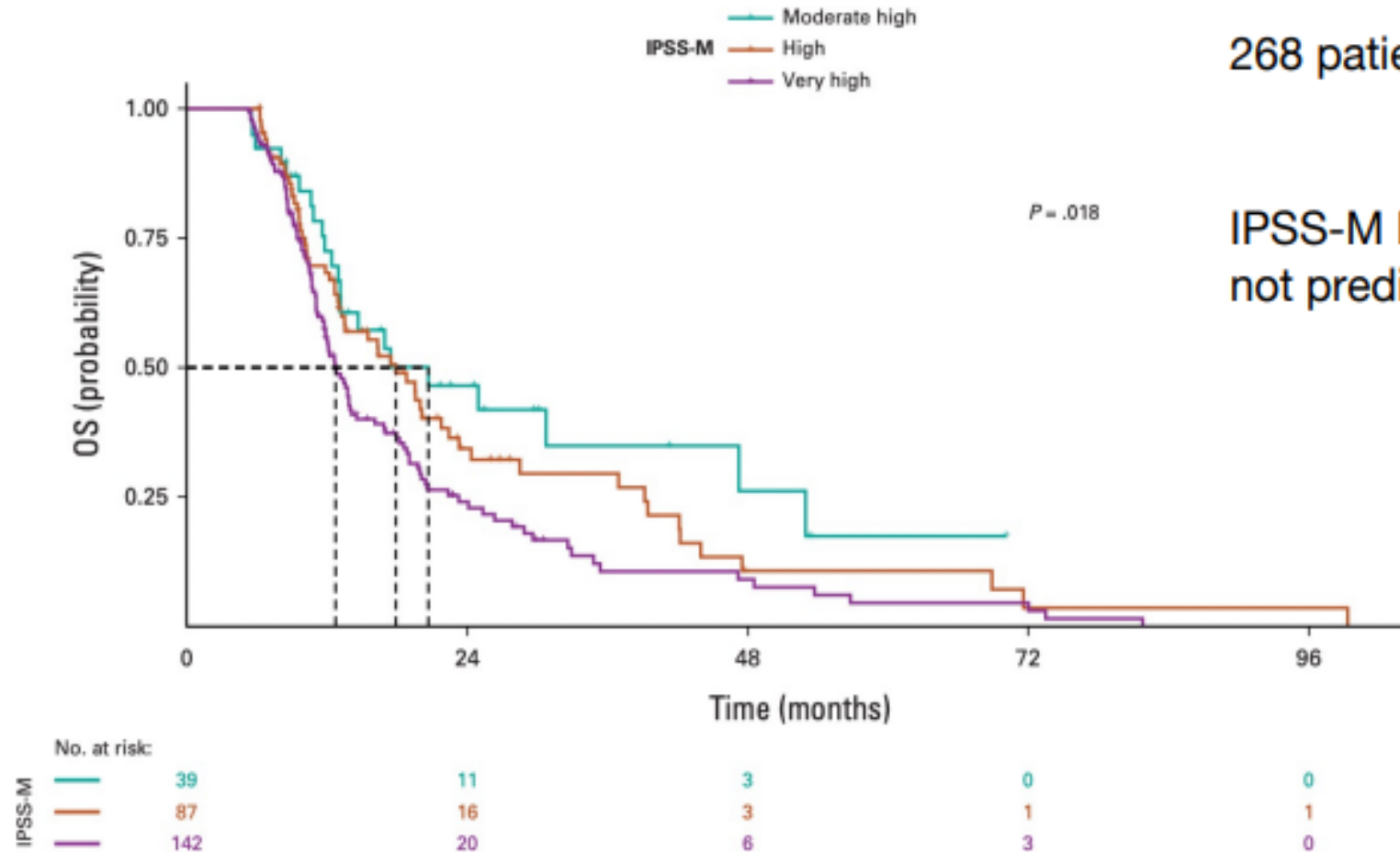
²Multiple reports of the same preferred term for a patient are counted only once.

Cosa abbiamo imparato dalla nostra esperienza con i farmaci ipometilanti

- Le risposte si notano dopo i primi 2-4 cicli di terapia
- Il raggiungimento anche del solo miglioramento delle citopenie migliora la sopravvivenza
- L'interruzione del trattamento provoca la perdita della risposta
- I pazienti con cariotipo complesso con TP53 pos possono rispondere sebbene per poco tempo
- I pazienti che non rispondono al trattamento o che ricadono hanno una sopravvivenza molto breve

IPSS-M prediction of OS in MDS treated with HMA

A



268 patients included

IPSS-M has prognostic value but not predictive

Sauta et al. JCO 2023

Selected historical RCTs

- AZA+Lenalidomide vs. AZA+ Vorinostat vs. AZA (SWOG S1117)
- AZA+ Durvalumab vs. AZA
- AZA+ Eltrombopag vs. AZA
- AZA + Pevonedistat vs. AZA (PANTHER)
- AZA+ APR-246 vs. AZA
- AZA+ Sabatolimab vs. AZA
- AZA vs. Conventional care

MDS classifications:

- WHO (prior versions)
- WHO (2022)
- ICC (2022)

Risk stratification models:

- IPSS (1997)
- IPSS-R (2002)
- IPSS-M (2022)

MDS IWG response criteria:

- 2000
- 2006 for HR-MDS
- 2018 for LR-MDS
- 2023 for HR MDS

Phase 3 RCTs:

- AZA+Venetoclax
- AZA+ Sabatolimab
- AZA+ Magrolimab
- AZA+ Tamibarotene

Two decades history of HR-MDS

Farmaci Ipometilanti Orali

Cedazuridine/decitabine p.o. (100/35 mg) and decitabine (20 mg/m² for 5d q4w) crossover study followed by cedazuridine/decitabine p.o. (100/35 mg) maintenance

NCT02103478

Intermediate- or higher-risk MDS and CMML

Garcia-Manero, Blood Advance 2020

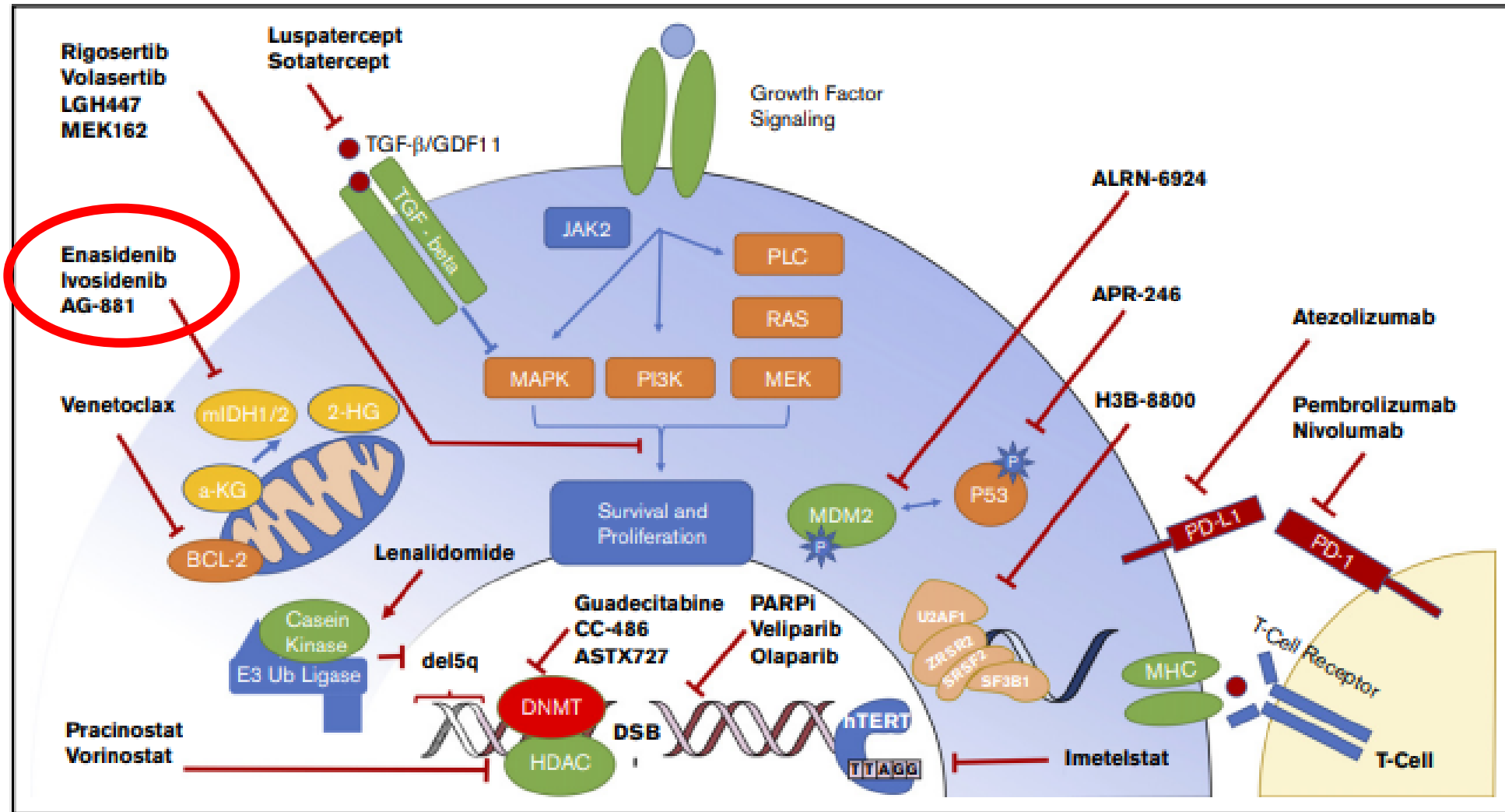
Cedazuridine/decitabine p.o. (100/35 mg) and decitabine (20 mg/m² for 5d q4w) crossover study followed by cedazuridine/decitabine p.o. (100/35 mg) maintenance

ASCERTAIN
NCT03306264

MDS, AML and CMML

Garcia-Manero, Lancet Hematology 2024

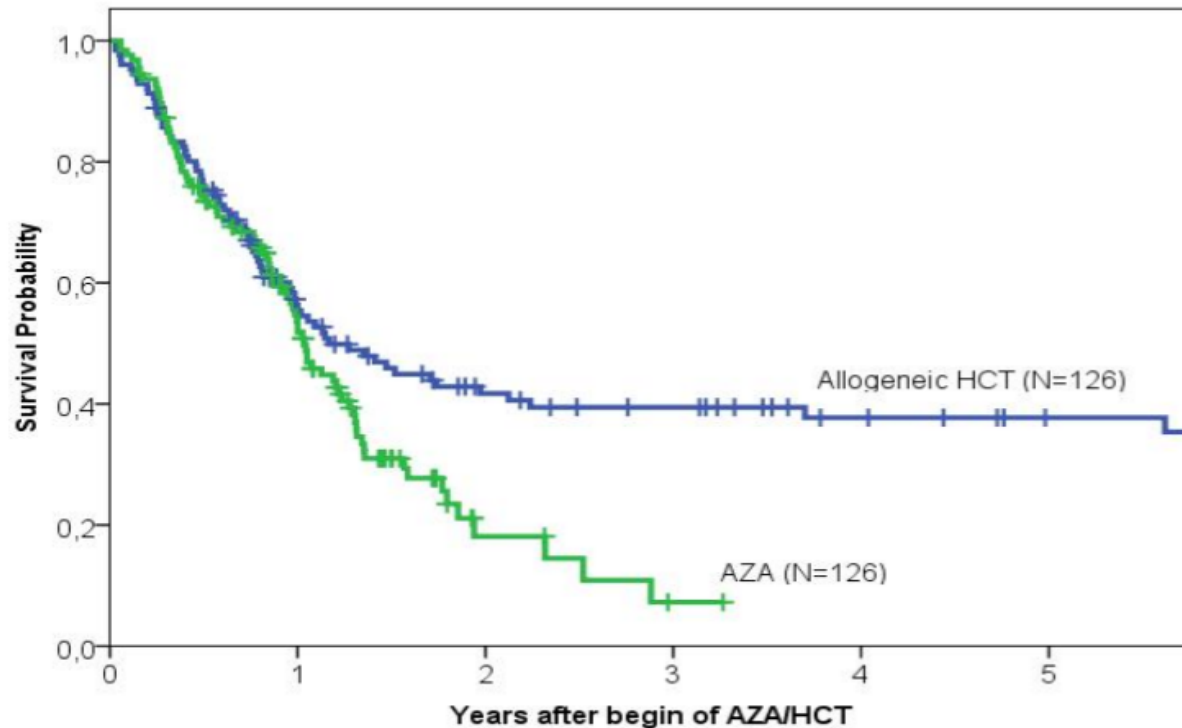
Targhet Therapy



Aleshin et al, Blood Advance 2018

Il trapianto allogenico rimane l'unica terapia curativa nelle MDS

(Platzbecker, BBMT, 2012)



Median follow-up of 20 months 3-year OS was 39% for HCT and 7% for 5-aza

Prospective comparison of allogeneic stem cell transplantation and conventional therapy in high-risk MDS

Authors	Conditioning	Compared to	Age in years	Donor (matched) vs. no donor, N	LFS, %	OS, %
Robin <i>et al.</i> ⁴⁷	RIC and MAC	HMA (76%) and others	50-70	112 vs. 50	ND	at 4 years: 37 vs. 15 $P=0.02$
Nakamura <i>et al.</i> (BMT-CTN 1102) ⁴⁶	RIC (different regimens)	HMA or best supportive care	50-75	260 vs. 124	at 3 years: 35.8 vs. 20.6 $P=0.03$	at 3 years: 47.9 vs. 26.6 $P=0.001$
Kröger <i>et al.</i> (VidazaAllo-Study) ⁴⁵	RIC (busulfan- based)	Azacitidine	50-70	81 vs. 27 [no donor: treated with azacitidine]	at 3 years: 34 vs. 0 $P<0.0001$	at 3 years: 50 vs. 32 $P=0.12$

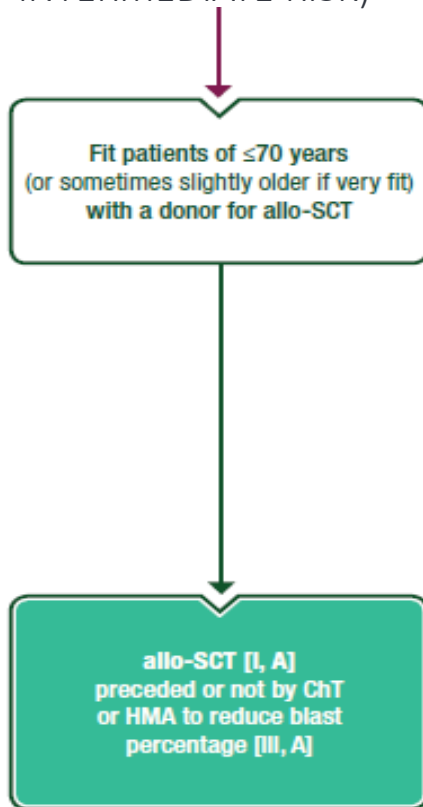
Trapianto allogenico di CSE nelle MDS

Il rapporto rischio/beneficio del
Trapianto Allogenico di CSE è determinato da:

- Selezione del paziente
- Il momento ottimale del trapianto

Chi candidiamo al Trapianto Allogeneico?

MDS ad alto rischio (IPSS-R)
HIGH, VERY HIGH,
INTERMEDIATE RISK)



PAZIENTE

- Età
- Comorbidità
- Performance Status

MALATTIA

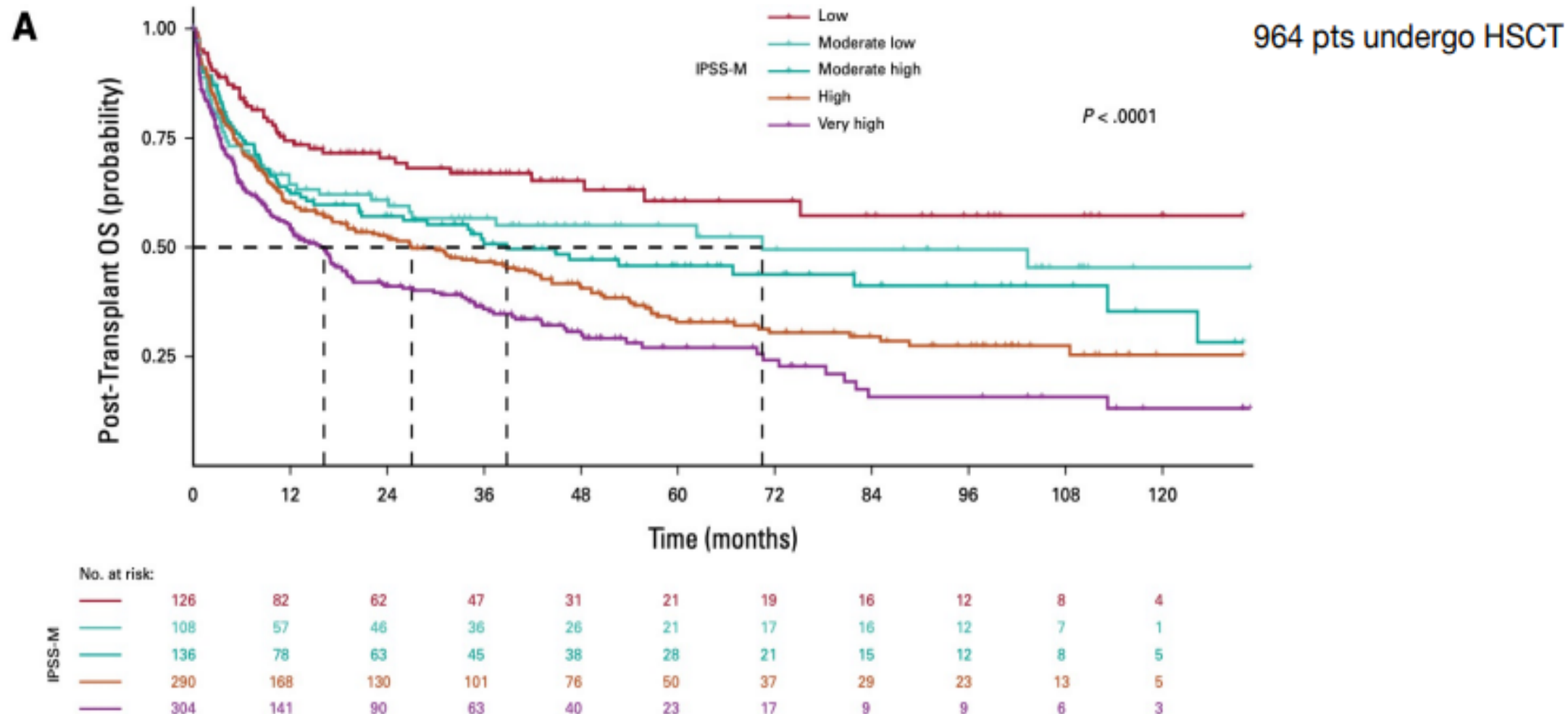
- IPSS-R score
- Anomalie citogenetiche
- Mutazioni

TRAPIANTO

- Tipo di donatore
- Regime di condizionamento

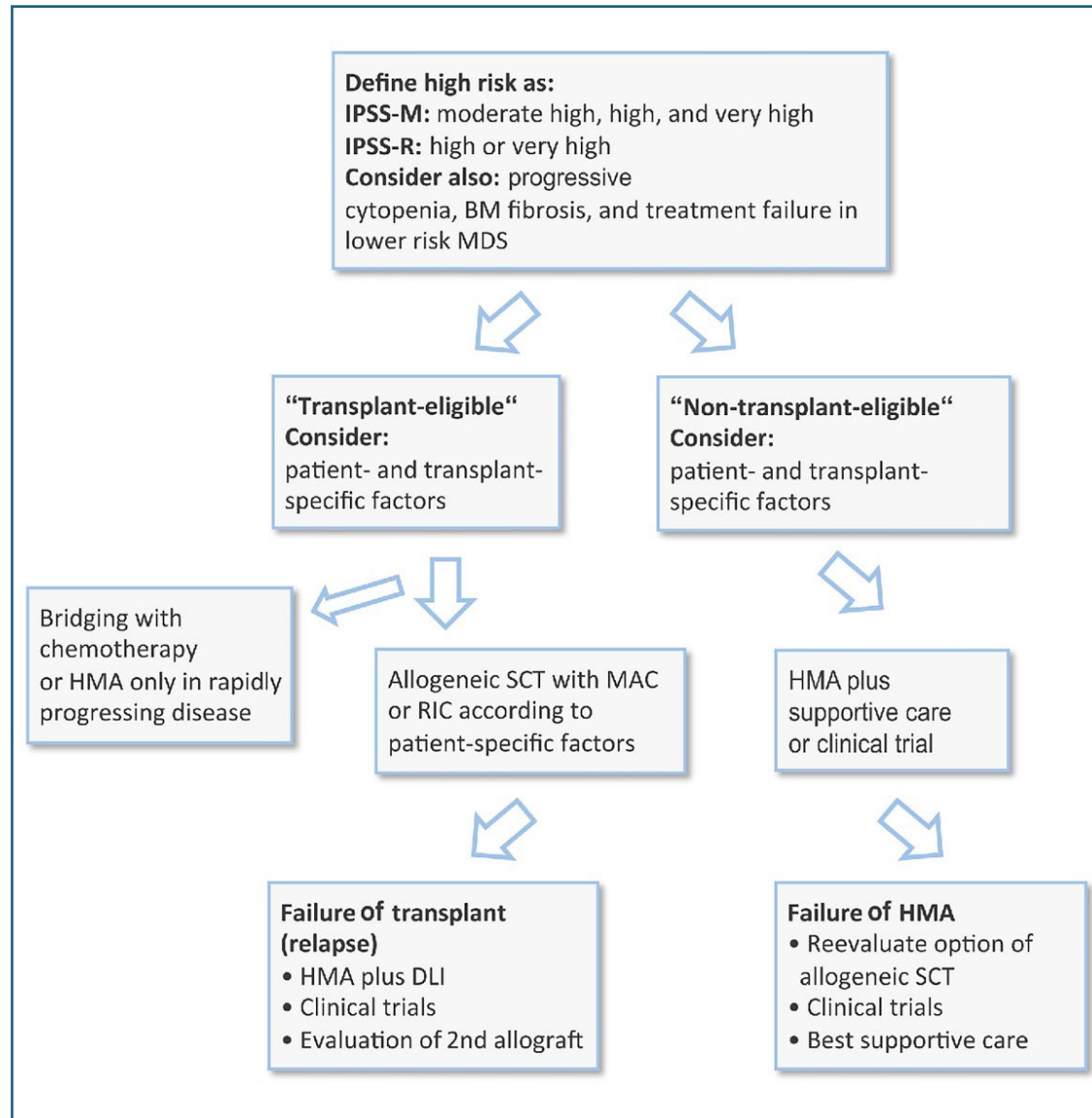
Fenaux, ESMO guidelines (2020)

IPSS-M improves the prediction of OS in MDS treated with HSCT



Sauta et al. JCO 2023

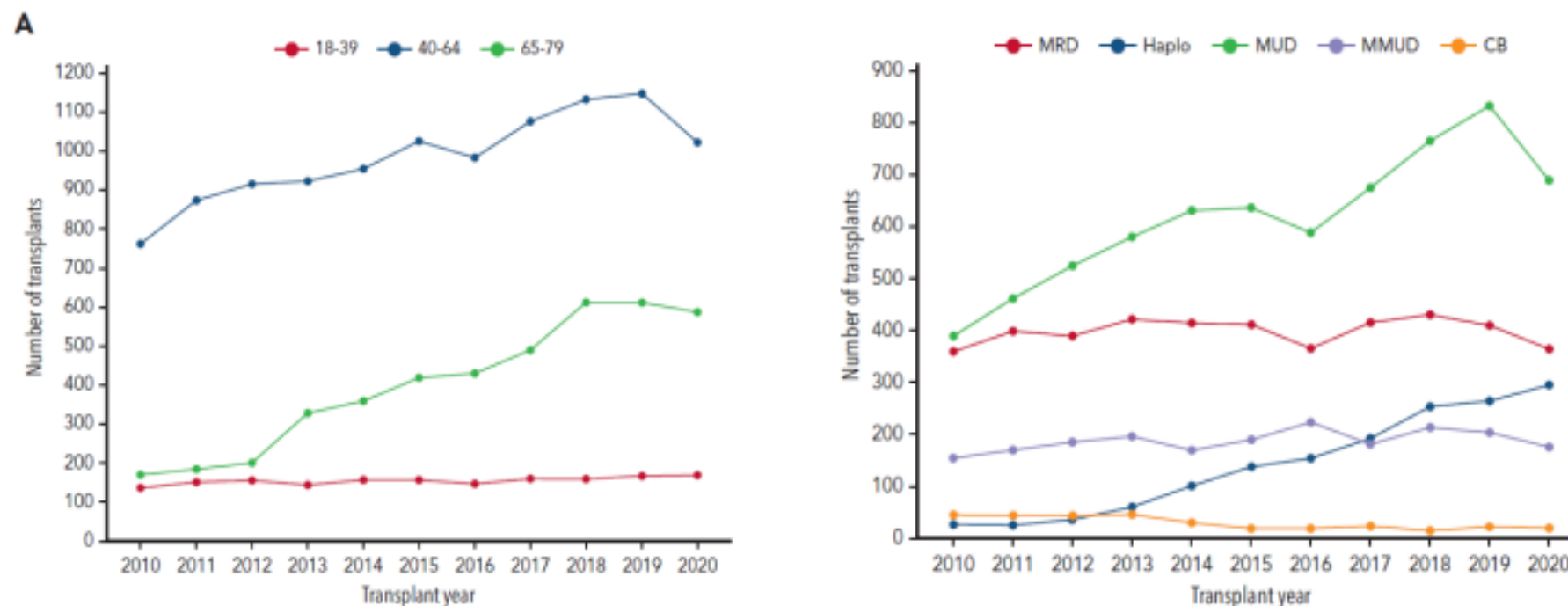
Chi candidiamo al Trapianto Allogeneico?



Kroger, Haematologica 2025

Clinical-genomic profiling of MDS to inform allo-HCT: recommendations from an international panel on behalf of the EBMT

Carmelo Gurnari,^{1,2} Marie Robin,³ Lionel Adès,³ Mahmoud Aljurf,⁴ Antonio Almeida,⁵ Fernando Barroso Duarte,⁶ Elsa Bernard,⁷ Corey Cutler,⁸ Matteo Giovanni Della Porta,⁹ Theo De Witte,¹⁰ Amy DeZem,¹¹ Joanna Drozd-Sokolowska,¹² Eric Duncavage,¹³ Pierre Fenaux,³ Nico Gagelmann,¹⁴ Guillermo Garcia-Manero,¹⁵ Claudia Haferlach,¹⁶ Torsten Haferlach,¹⁶ Robert Hasserjian,¹⁷ Eva Hellström-Lindberg,¹⁸ Meagan Jacoby,¹⁹ Austin Kulasekararaj,²⁰ R. Coleman Lindsley,⁸ Jaroslaw P. Maciejewski,² Hideki Makishima,²¹ Luca Malcovati,²² Moshe Mittelman,²³ Anders E. Myhre,²⁴ Seishi Ogawa,²⁵ Francesco Onida,²⁶ Elli Papaemmanuil,²⁷ Jakob Passweg,²⁸ Uwe Platzbecker,^{29,30} Lisa Pleyer,³¹ Kavita Raj,³² Valeria Santini,³³ Anna Sureda,³⁴ Magnus Tobiasson,¹⁸ Maria Teresa Voso,¹ Ibrahim Yakoub-Agha,³⁵ Amer Zeidan,³⁶ Matthew Walter,¹⁹ Nicolaus Kröger,¹⁴ Donal P. McLoman,^{32,*} and Mario Cazzola^{22,*}



Gurnari et al, Blood 2025

Quando effettuare il Trapianto Allogeneico di CSE ?

- Alto rischio IPSS-M : se paziente elegibile, trapianto subito
- Basso rischio IPSS-M : considerare subito il trapianto se:
 - Trasfusione-dipendente
 - Presenti mutazioni germline
 - MDS therapy related
 - Vexas con problematiche infiammatorie severe

Gurnari et al, Blood 2025

Grazie a tutti!!!



a.poloni@univpm.it