

HOT QUESTIONS IN TRANSPLANTATION

La mobilitazione con fattori di crescita granulocitario e plerixafor è preferibile alla mobilitazione con chemioterapia ai fini di autotrapianto?

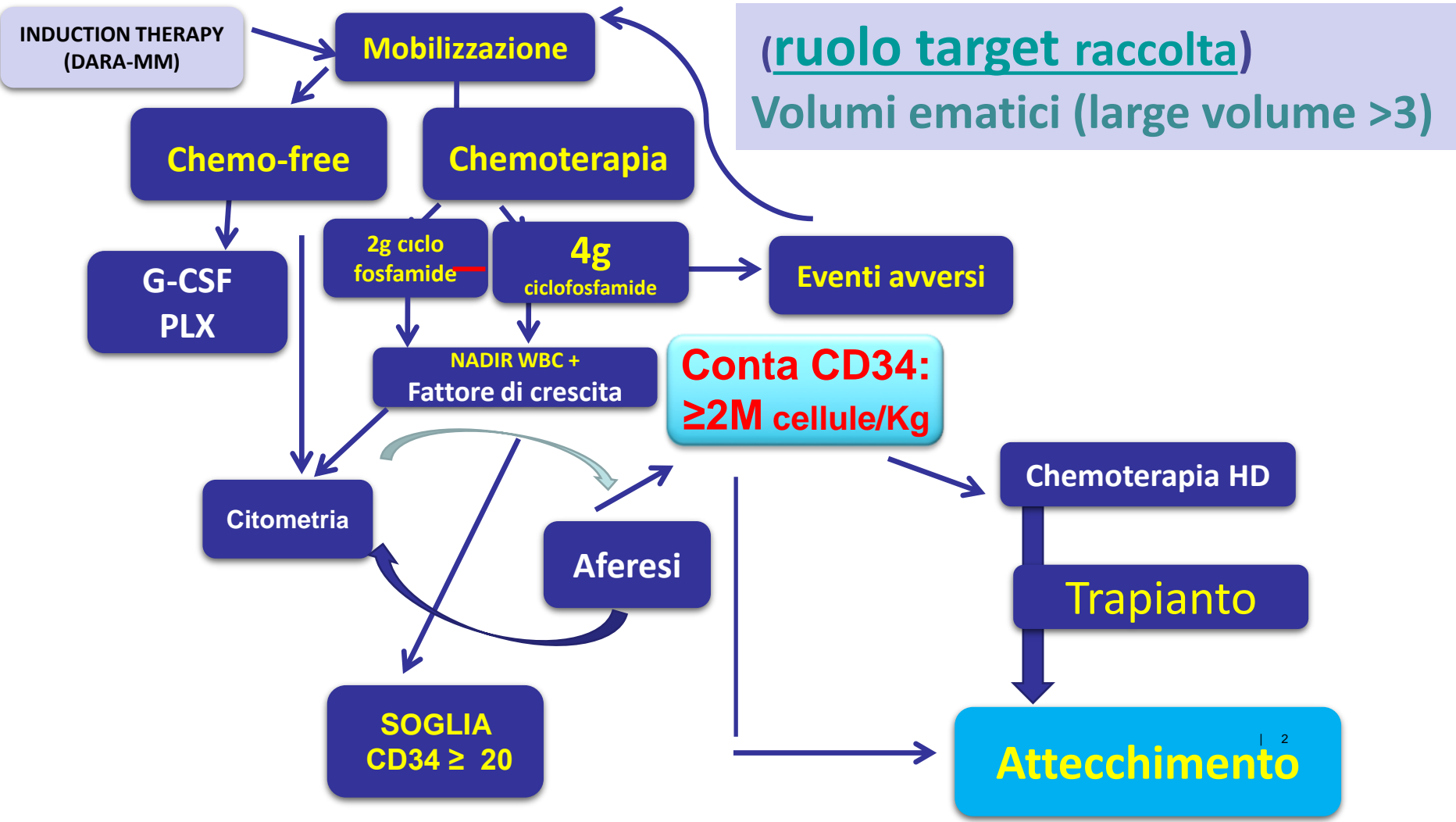
Francesco Lanza

Le ragioni del Si: Olivieri A

Le ragioni del no: Milone G



Strategie mobilizzazione : efficacia, eventi avversi-ospedalizzazione- farmacoeconomia -



CD34⁺ YIELD

1-2-3 transplants

**LOW NUMBER OF
APHERESIS**

**GOALS OF STEM CELL COLLECTION
ARE TO MAXIMIZE THE CD34⁺
CELLS/Kg COLLECTED WITH THE
LEAST NUMBER OF APHERESIS DAYS
TO ACHIEVE THE CD34⁺ CELL DOSE
NEEDED FOR HSCT AT A LOWEST COST**

**NO INFUSION-
RELATED ADVERSE
REACTION (**GRAFT
COMPOSITION**)**

**GOOD SHORT &
LONG-TERM
OUTCOME POST-
BMT**



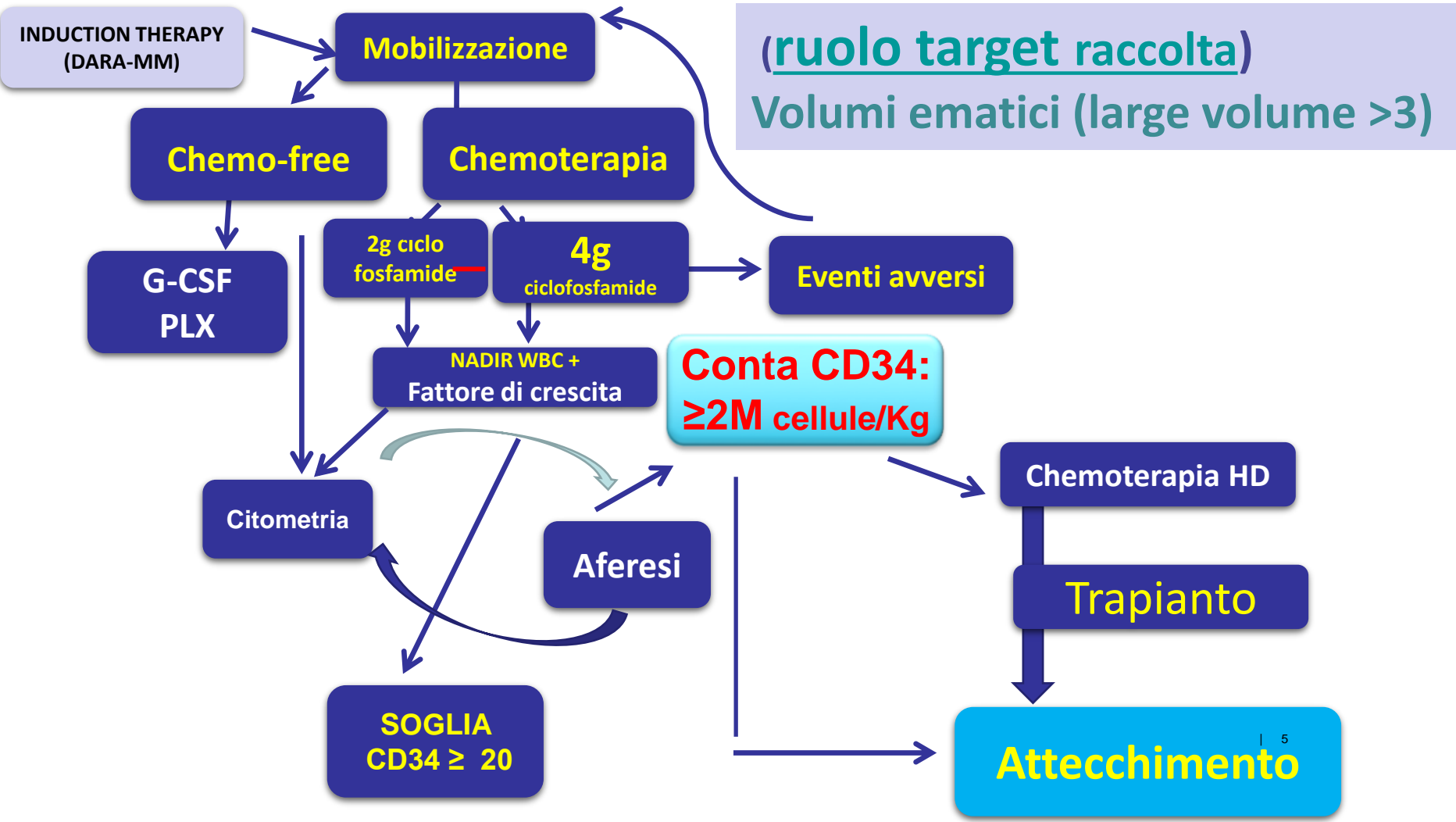
CONVEGNO EDUCAZIONALE GITMO

HOT QUESTIONS IN TRASPLANTATION AND CELLULAR THERAPIES

Udine, 13-14 novembre 2023

Aula Polifunzionale - Ospedale di Udine

Strategie mobilizzazione : efficacia, eventi avversi-ospedalizzazione- farmacoeconomia -



Variabili

Patologia: MM, LH, LNH, M AUTOIMMUNI, LAM)

Terapia induzione: Dara-VTD, multiple linee.

Tipo chemioterapia di mobilizzazione

(Ciclofosfamide e dosaggio, ARA-C, G-CSF + PLX)

CONDIZIONI PARTICOLARI: AMILOIDOSI, INSUFF RENALE, BETA TALASSEMIA, MALATTIA ATTIVA,

Target Raccolta 2-4-10 CD34/kg x 10^6 (**1 o piu** trapianti)

Procedura di aferesi (volumi ematici $> 0 < 3$),

Eff Raccolta

RESEARCH

Open Access



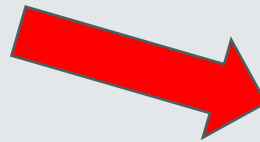
Efficacy of hematopoietic stem cell mobilization regimens in patients with hematological malignancies: a systematic review and network meta-analysis of randomized controlled trials

Chengxin Luo^{1,2†}, Guixian Wu^{1,2†}, Xiangtao Huang^{1,2}, Yali Zhang^{1,2}, Yanni Ma^{1,2}, Yarui Huang^{1,2}, Zhen Huang^{1,2}, Hui Li^{1,2}, Yu Hou^{1,2}, Jieping Chen^{1,2}, Xi Li^{3*} and Shuangnian Xu^{1,2*}

Cassiopea Study, Haematologica 2023

Table 1. Stem cell mobilization, harvesting, and transplantation.

	D-VTd	VTd	P
Patients with stem cell mobilization	N=506	N=492	
PBSC mobilizing agents, n (%) ^a			
Cyclophosphamide/G-CSF	506 (100)	492 (100)	
Plerixafor	110 (21.7)	39 (7.9)	<0.0001 ^b
PBSC apheresis performed, n (%)	504 (99.6) ^c	490 (99.6) ^d	>0.999 ^b
Patients with PBSC apheresis performed	N=504	N=490	
Number of days of apheresis, mean [SD] (range)	1.9 [0.92] (1–6)	1.4 [0.67] (1–4)	<0.0001 ^e
Number of days of apheresis, n (%)			<0.0001 ^f
1	184 (36.5)	327 (66.7)	
2	204 (40.5)	125 (25.5)	
3	91 (18.1)	32 (6.5)	
4	18 (3.6)	6 (1.2)	
5	4 (0.8)	0	
6	3 (0.6)	0	
Total number of CD34 ⁺ stem cells collected (10 ⁶ /kg) among patients with PBSC apheresis performed			
Mean [SD] (range)	6.7 [2.63] (0.5–18.7)	10.0 [5.25] (2.2–36.9)	<0.0001 ^e
≥2 × 10 ⁶ /kg, n (%)	501 (99.4)	490 (100)	0.2494 ^b
≥4 × 10 ⁶ /kg, n (%)	444 (88.1)	470 (95.9)	<0.0001 ^b
≥5 × 10 ⁶ /kg, n (%)	380 (75.4)	434 (88.6)	<0.0001 ^b
Patients who underwent transplantation, n (%)	489 (97.0)	484 (98.8)	0.0758 ^b
Number of CD34 ⁺ stem cells transplanted (10 ⁶ /kg), Mean [SD] (range)	3.6 [1.59] (0.5–12.6)	5.0 [2.80] (1.2–23.3)	<0.0001 ^e



Mobilizzazione HSC

"Raccomandazioni per il trattamento mirato alla produzione di cellule staminali emopoietiche (CSE) per il trapianto autologo e allogenico"

Metodo: GRADE

6 domini

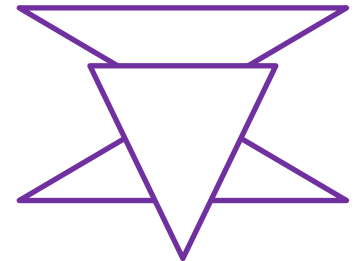
6 PICO

17 tips

1. Vassanelli Aurora
2. Savignano Chiara
3. Saglio Francesco
4. Olivieri Attilio
5. Ostuni Angelo
6. Saccardi Riccardo
7. Milone Giuseppe
8. Orlando Laura
9. Longoni Paolo
10. Lucrezia Imbalzano
11. Degrandi Eliana
12. Stefania Spadoni (pazienti)
13. presidente GITMO

1. **Agenti mobilizzanti**
2. **Strategie di mobilizzazione**
3. **Ottimizzazione del prodotto**
4. **Popolazioni particolari**
5. **Organizzazione**
6. **Monitoraggio clinico**

Chair: Francesco Lanza



Machine learning–based scoring models to predict hematopoietic stem cell mobilization in allogeneic donors

Jingyu Xiang,¹ Min Shi,^{2,3} Mark A. Fiala,¹ Feng Gao,⁴ Michael P. Rettig,¹ Geoffrey L. Uy,¹ Mark A. Schroeder,¹ Katherine N. Weillbaecher,¹ Keith E. Stockerl-Goldstein,¹ Shamim Mollah,^{2,3} and John F. DiPersio¹

¹Division of Oncology, Department of Medicine, ²Department of Genetics, ³Institute for Informatics, and ⁴Division of Public Health Sciences, Department of Surgery, Washington University School of Medicine, St. Louis, MO

Table 1. Patient characteristics of 1361 related allogeneic donors

	Regimens	All patients	G-CSF	G-CSF + GM-CSF	GM-CSF	GM-CSF + Plerixafor	Plerixafor	BL-8040
	Total, N	1361	1025	167	40	23	88	18
Age	Median (range)	49 (18-79)	50 (18-78)	44 (18-77)	49 (29-79)	52 (21-65)	51 (21-67)	55 (20-69)
Sex, n (%)	Female	611 (44.9)	462 (45.1)	74 (44.3)	19 (47.5)	13 (56.5)	36 (40.9)	7 (38.9)
	Male	750 (55.1)	563 (54.9)	93 (55.7)	21 (52.5)	10 (43.5)	52 (59.1)	11 (61.1)
Race, n (%)	White	1209 (88.8)	904 (88.2)	148 (88.6)	38 (95)	21 (91.3)	82 (93.2)	16 (88.9)
	African American	96 (7.1)	78 (7.6)	10 (6)	1 (2.5)	2 (8.7)	5 (5.7)	–
	Others	41 (3)	31 (3)	8 (4.8)	–	–	1 (1.1)	1 (5.6)
	Unknown	15 (1.1)	12 (1.2)	1 (0.6)	1 (2.5)	–	–	1 (5.6)
CD34 yield	Day 1 CD34 per kg (10 ⁶)	6.97 (0.1-62.65)	7.57 (0.3-62.65)	7.6 (0.3-57.4)	2.9 (0.1-20.6)	2.82 (0.79-15.41)	2.27 (0.2-19.73)	2.25 (0.4-9.42)
	Day 1 CD34 per μ L	64 (0.5-528)	70 (4.6-503)	79.7 (1.5-528)	26 (0.5-150)	23 (8-144)	16 (2-107)	27 (6-50)

OCTOBER ISSUE

THEME :
**NOVEL STRATEGIES IN
STEM CELL MOBILISATION
AND
COLLECTION**



Volume 58, issue 4, August 2019

ISSN 1473-0502

Transfusion and Apheresis Science

Official Journal of:
The World Apheresis Association
The European Society for Haemapheresis
The Società Italiana di Emaferesi
e Manipolazione Cellulare
The Turkish Society of Apheresis

Co-Editors in Chief
Gail A. Rock
Ravindra Sarode

Senior Editors
F Altuntas, J Cid, M Irani, Francesco Lanza

Featuring

- ▶ INTERNATIONAL FORUM: France
- ▶ People, Places and Things
- ▶ THEME SECTION: PATIENT BLOOD MANAGEMENT
- ▶ Submitted Papers
- ▶ What's Happening Section