

LAL e LAM : DAY

2026

Stato dell'arte delle Leucemie Acute

ED. CENTRO

31 marzo 2026 Roma

Esperienza di pratica clinica nel paziente Fit a rischio intermedio

Dr.ssa P. Salutari

UOC Ematologia, ASL Pescara

Dir prof Di Ianni

Caso 1: presentazione clinica

Dati Anagrafici

Nome: P.F.

Sesso: ♀

Data di nascita: 04/03/1981 (44 anni)

Anamnesi

- Frattura del piatto tibiale (02/2024)
- Donatrice FIDAS
- 1 gravidanza a termine (parto eutocico)

Motivo di valutazione

Anemia persistente non responsiva a supplementazione vitaminica

Prima valutazione: Aprile 2025
Gb4950 (N2250) Hgb 9,4 g/dL,
Piastrine 147.000



Caso 1: diagnostica ematologica

Aspirato midollare

Blasti

Morfologico: 18%

Citofluorimetria (MFC): ~20% (blasti mieloidi)

Cariotipo

46, XX

Interpretazione: Cariotipo normale.
Nessuna anomalia strutturale riportata.

Ricerca di riarrangiamenti principali: **negativa**.

Immunofenotipo

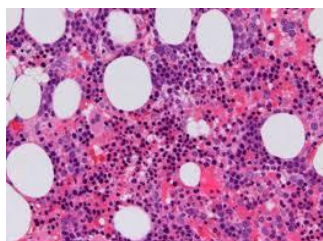
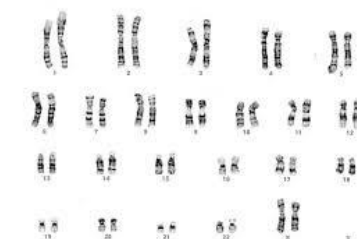
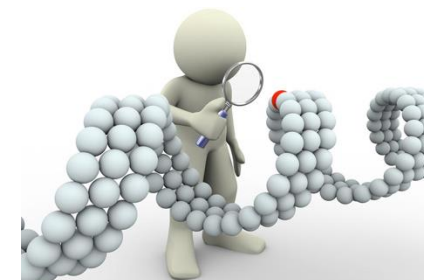
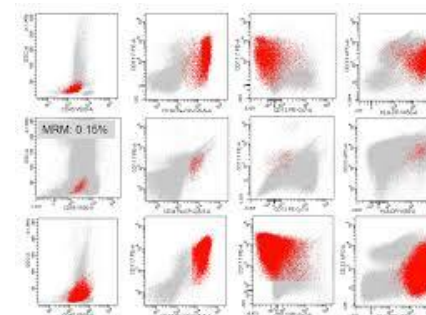
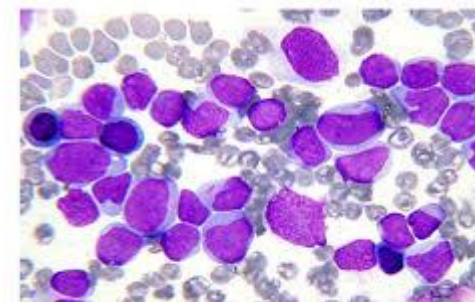
- CD13+
- CD33het
- CD34-
- CD38+
- CD117+
- HLA-DR+
- MPOhet

Biologia Molecolare

- NPM1-
- FLT3-
- BCR-ABL-
- AML1-ETO-
- CBFB-MYH11-

Biopsia osteomidollare

Infiltrato midollare di elementi blastici con caratteristiche compatibili con LAM.



Caso 1: WHO e ELN 2022

Acute myeloid leukaemia with defining genetic abnormalities

- Acute promyelocytic leukaemia with *PML::RARA* fusion
- Acute myeloid leukaemia with *RUNX1::RUNX1T1* fusion
- Acute myeloid leukaemia with *CBFB::MYH11* fusion
- Acute myeloid leukaemia with *DEK::NUP214* fusion
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Acute myeloid leukaemia, defined by differentiation

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- Acute myelomonocytic leukaemia
- Acute monocytic leukaemia
- Acute erythroid leukaemia
- Acute megakaryoblastic leukaemia

Risk category†	Genetic abnormality
Favorable	- t(8;21)(q22;q22.1)/<i>RUNX1::RUNX1T1</i>†,‡ - inv(16)(p13.1q22) or t(16;16)(p13.1;q22)/<i>CBFB::MYH11</i>†,‡ - Mutated <i>NPM1</i>†,§ without <i>FLT3</i>-ITD - bZIP in-frame mutated <i>CEBPA</i>
Intermediate	- Mutated <i>NPM1</i>†,§ with <i>FLT3</i>-ITD - Wild-type <i>NPM1</i> with <i>FLT3</i>-ITD (without adverse-risk genetic lesions) - t(9;11)(p21.3;q23.3)/<i>MLLT3::KMT2A</i>†,¶ - Cytogenetic and/or molecular abnormalities not classified as favorable or adverse
Adverse	- t(6;9)(p23.3;q34.1)/<i>DEK::NUP214</i> - t(v;11q23.3)/<i>KMT2A</i>-rearranged# - t(9;22)(q34.1;q11.2)/<i>BCR::ABL1</i> - t(8;16)(p11.2;p13.3)/<i>KAT6A::CREBBP</i> - inv(3)(q21.3q26.2) or t(3;3)(q21.3;q26.2)/<i>GATA2</i>, <i>MECOM</i>(<i>EVI1</i>) - t(3q26.2;v)/<i>MECOM</i>(<i>EVI1</i>)-rearranged −5 or del(5q); −7; −17/abn(17p) - Complex karyotype,** monosomal karyotype†† - Mutated <i>ASXL1</i>, <i>BCOR</i>, <i>EZH2</i>, <i>RUNX1</i>, <i>SF3B1</i>, <i>SRSF2</i>, <i>STAG2</i>, <i>U2AF1</i>, and/or <i>ZRSR2</i>‡‡ - Mutated <i>TP53</i>³

NGS in corso...



Caso 1: work up



TC torace

Micronoduli bilaterali indeterminati; linfadenopatie ilari/mediastiniche aspecifiche; sottile falda di versamento pericardico.

Ecocardiogramma)

Funzione sistolica biventricolare conservata; assenza di reperti flussimetrici patologici.

FibroScan (

Rigidità epatica **4,36 kPa** (nei limiti).

Spirometria

Test funzionali respiratori nei limiti della norma.

HLA & Percorso Donatore

Tipizzazione HLA

Lista potenziali donatori / avvio ricerca:



AML 1819

12/05/2025

Caso 1: AML 1819



INDUZIONE 3+7+GO

FUO



RIVALUTAZIONE POST-INDUZIONE

19/06/2025

MRD 0,014% (Positiva)

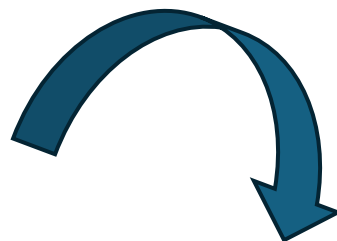
RC morfologica

Remissione morfologica con MRD rilevabile

Caso 1: AML 1819



CONSOLIDAMENTO



RACCOLTA PBSC



RIVALUTAZIONE POST-CONSOLIDAMENTO

MRD Negativa (centralizzata), MRD locale positiva

RC morfologica

Remissione completa morfologica + clearance MRD



Caso 1: Profilo mutazionale NGS

RUNX1

VAF: 42%

Variante: p.R107S

WT1

VAF: 34%

Variante: p.Q452*

Risk category†	Genetic abnormality
Favorable	• t(8;21)(q22;q22.1)/RUNX1::RUNX1T1†,‡ • inv(16)(p13.1q22) or t(16;16)(p13.1;q22)/CBFB::MYH11†,‡ • Mutated NPM1†,§ without FLT3-ITD • bZIP in-frame mutated CEBPA
Intermediate	• Mutated NPM1†,§ with FLT3-ITD • Wild-type NPM1 with FLT3-ITD (without adverse-risk genetic lesions) • t(9;11)(p21.3;q23.3)/MLLT3::KMT2A†,¶ • Cytogenetic and/or molecular abnormalities not classified as favorable or adverse
Adverse	• t(6;9)(p23.3;q34.1)/DEK::NUP214 • t(v;11q23.3)/KMT2A-rearranged# • t(9;22)(q34.1;q11.2)/BCR::ABL1 • t(8;16)(p11.2;p13.3)/KAT6A::CREBBP • inv(3)(q21.3q26.2) or t(3;3)(q21.3;q26.2)/GATA2, MECOM(EVI1) • t(3q26.2;v)/MECOM(EVI1)-rearranged • -5 or del(5q); -7; -17/abn(17p) • Complex karyotype,** monosomal karyotype†† • Mutated ASXL1, BCOR, EZH2, RUNX1, SF3B1, SRSF2, STAG2, U2AF1, and/or ZRSR2‡‡ • Mutated TP53ª

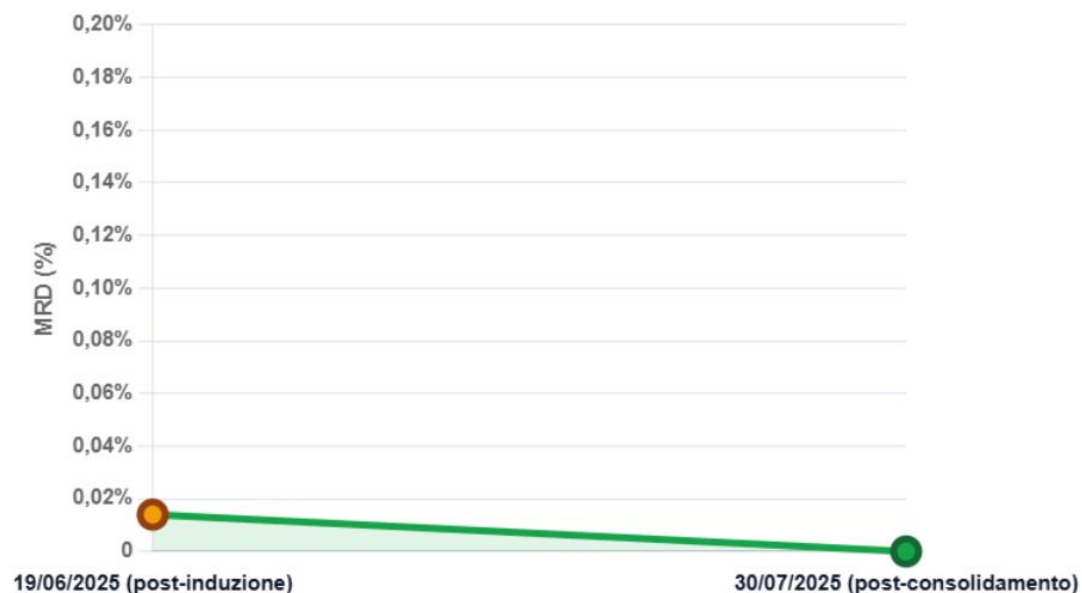




Caso 1: Auto o Allo?

Trapianto Allogeneico MUD

20/09/2025



- **ATTECCHIMENTO COMPLETO** della serie granulocitaria e piastrinica
- **EPISODIO FEBBRILE AD EZIOLOGIA SCONOSCIUTA:** In data 29.09 (+9) comparsa di febbre. **RIATTIVAZIONE di CITOMEGALOVIRUS:** in data 13.10 (+23) riscontro di PCR-CMV 568/ml copie. **MUCOSITE** di grado III (26/09/25 g +6)
- **TROMBOSI VENOSA** ascellare dx: in data 17/10 (+27).
- **INTERTRIGINE:** in data 13/10/25 g +23 comparsa di dermatite verosimilmente iatrogena
- **CISTITE EMORRAGICA:** in data 22/10 (+32).

La paziente è in buone condizioni, in remissione di malattia, ultimo follow up il 19/2/26.

Caso 2: Presentazione clinica

Dati Anagrafici

Nome

I.G.

Sesso



Data di nascita

18/05/1965 (60 anni)

Anamnesi

Fumatore

Familiarità: un fratello con schizofrenia

Familiarità: un fratello deceduto per cirrosi epatica

Motivo di Valutazione

Episodio lipotimico con rilascio sfinteriale →
riscontro di **pancitopenia** in Pronto Soccorso.
Soccorso.

Data accesso PS: 14/06/2025 (Sant'Omero)



Caso 2: diagnostica ematologica



Aspirato Midollare

80% elementi blastici ad habitus monocitoide

Biologia Molecolare

- NPM1
- FLT3
- IDH
- BCR-ABL
- AML1-ETO
- CBFB-MYH11

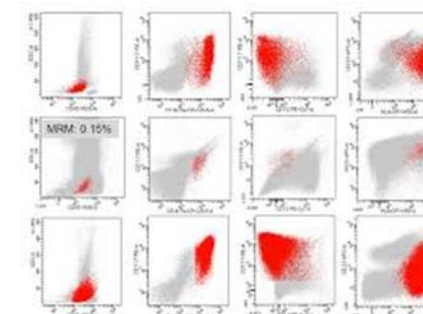
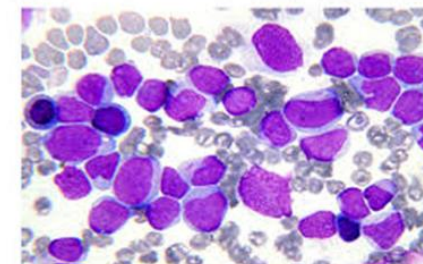
Immunofenotipo

Blasti (5-6%):

CD13+
CD33+
CD34+
CD117+
CD123dim
HLA-DR+

Monociti aberranti (30%):

CD13het
CD14+
CD33+
CD45+
CD56het
CD64+
HLA-DR+



Citogenetica

Cariotipo: **46, XY** (Cariotipo normale)

Metafasi: 20 analizzate



Caso 2: WHO e ELN 2022

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NGS in corso...



Caso 2: Work up



Esami Strumentali Pre-Trattamento

TC Torace

Ispessimento setti interlobulari (base emodinamica); linfadenopatie ascellari e mediastiniche (max 10 mm); aree "a vetro smerigliato"

Eco Addome

Fegato nei limiti; ectasia vie biliari intraepatiche a sinistra; angiomiolipoma renale 4 mm

FibroScan

: Rigidità tissutale **6,05 kPa** (lieve aumento)

Ecocardiogramma

Nei limiti, FE conservata

HLA & Percorso Donatore

Tipizzazione HLA:

No donatori familiari, avvio ricerca:

AML 1819

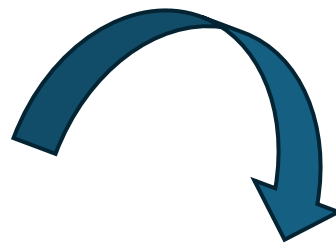
01/07/2025



Caso 2: AML 1819



INDUZIONE 3+7+GO



Sepsi da S. Mitis



RIVALUTAZIONE POST-INDUZIONE

MRD 0,16% (Positiva)

RC morfologica

Remissione morfologica
con MRD rilevabile



Caso 2: AML 1819



CONSOLIDAMENTO



Sepsi da Streptococcus
Parasanguinis

Fallita mobilizzazione PBSC



RIVALUTAZIONE POST-CONSOLIDAMENTO

MRD positiva (centralizzata),
MRD locale positive (0.015%)

RC morfologica

Remissione completa morfologica con
persistenza di MRD



Caso 1: Profilo mutazionale NGS

RUNX1 (3 mutazioni distinte)

VAF: 26%, 18%, 5%

EZH2 (2 mutazioni)

VAF: 30%, 21%

ZRSR2 (2 mutazioni distinte)

VAF: 54%, 11%

FLT3

VAF: 7%

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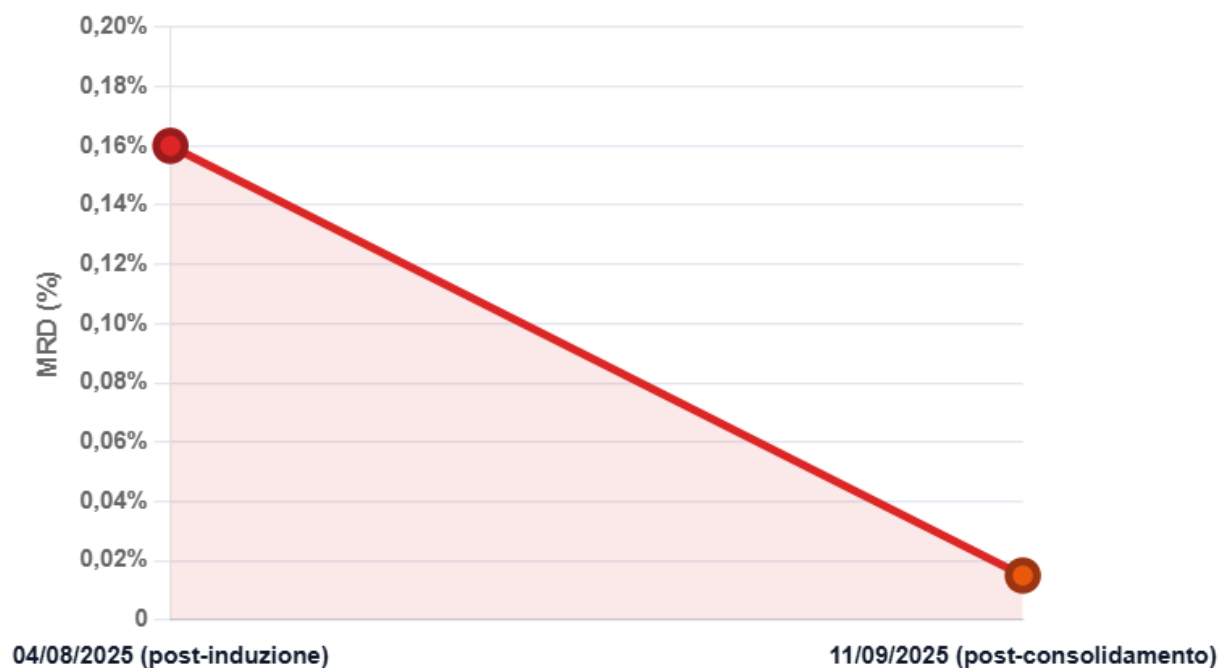


Caso 2: Indicazione ALLO TMO



Trapianto Allogeneico MUD (altro centro)

07/11/2025



- VOD severa
 - ALVEOLITE EMORRAGICA
- Exitus al G +49 (26/12/2025)



Riflettiamo.....



- ☐ La categoria del «rischio intermedio» tenderà ovviamente a ridursi sempre di più.
- ☐ Non si può prescindere dall'analisi NGS per la diagnosi e trattamento delle leucemie acute
- ☐ L'impiego del trapianto allogenico nel rischio intermedio rimane ancora materia di dibattito.
- ☐ Per i pazienti ELN intermediate risk con ottima risposta MRD a fine consolidamento, la scelta trapiantologica DEVE essere discussa (*racc 9 « A Consensus Document from the ELN DAVID MRD Working party» Blood 2025*)



Grazie per
L'attenzione

Esperienza di pratica clinica nel paziente Fit a rischio intermedio

Dr.ssa P. Salutari

UOC Ematologia, ASL Pescara

Dir Prof M.Di Ianni