Allegato 5 : Diagnosi di TE

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La revisione WHO 2016 pone nuovi criteri diagnostici per la TE (Tabella 1).

Tabella 1. The 2016 revision to the World Health Organization classification of myeloid neoplasm and acute leukemia: WHO criteria for TE

WHO ET criteria
Major criteria
1. Platelet count ≥450 × 10^9/L
2. BM biopsy showing proliferation mainly of the megakaryocyte lineage with increased numbers of enlarged, mature megakaryocytes with hyperlobulated nuclei. No significant increase or left shift in neutrophil granulopoiesis or erythropoiesis and very rarely minor (grade 1) increase in reticulin fibers
3. Not meeting WHO criteria for *BCR-ABL1*$^+$ CML, PV, PMF, myelodysplastic syndromes, or other myeloid neoplasms
4. Presence of *JAK2*, *CALR*, or *MPL* mutation
Minor criterion
Presence of a clonal marker or absence of evidence for reactive thrombocytosis
Diagnosis of ET requires meeting all 4 major criteria or the first 3 major criteria and the minor criterion

ESAMI I LIVELLO

- **Anamnesi** sulle cause note di piastrinosi reattive, primaria congenita o acquisita
- **Ripetizione** dell'emocromo.
- **Esclusione cause secondarie**: esame morfologico striscio periferico, funzionalità renale ed epatica, LDH, VES, PCR, fibrinogeno, assetto marziale completo, esame urine, Rx torace standard in 2p, ecografia addome superiore ed inferiore

ESAMI II LIVELLO

- **Ricerca mutazionale**
  BCR-ABL1 e JAK2 V617F (qualitativa e quantitativa); se neg → CALR; se neg → MPL; sec WHO 2016
- **BOM** (sec WHO 2016) raccomandata anche se biologia molecolare positiva per distinguere TE da MF-prefibrotica; da valutare se usare citoriduzione neo-adiuvante in caso di piastrinosi estrema (>1500000) per il rischio elevato di sanguinamento

Gli score prognostici per TE sono riassunti nella Tabella 2.

Tabella 2. Score prognostici per TE

Prognostic model	Risk groups and clinical relevance
Conventional score for prediction of vascular complications (European LeukemiaNet recommendations)[70]	
At least 1 of the following risk factors:	
• Age ≥60 y	Low risk: age <60 y AND no history of thrombosis or major bleeding AND PLT count <1500 × 10^9/L, that is, none of the 3 major risk factors
• Previous thrombosis or major bleeding	High risk: age ≥60 y AND/OR history of thrombosis or major bleeding AND/OR PLT count ≥1500 × 10^9/L, that is, at least 1 of the 3 major risk factors
• PLT count ≥1500 × 10^9/L	While low-risk patients are just followed (observation alone) or given low-dose aspirin, high-risk patients are given a cytoreductive treatment plus low-dose aspirin
IPSET-thrombosis (International Prognostic Score for ET: estimates the risk of thrombosis)[71]	
Risk factors (weight):	Low risk: 0-1 point (probability of thrombotic events: 1.03% of patients/year)
• Age ≥60 y (1 point)	Intermediate risk: 2 points (2.35% of patients/year)
• Previous thrombosis (2 points)	High risk: ≥3 points (3.56% of patients/year)
• Cardiovascular risk factors* (1 point)	Potential therapeutic implications: (1) observation alone may be adequate in patients with no risk factors; (2) low-dose aspirin should be used in all patients with *JAK2* (V617F) and/or cardiovascular risk factors; (3) older patients (≥60 y) without additional risk factors may not need a cytoreductive treatment; (4) conversely, a cytoreductive treatment may be considered in younger patients (<60 y) with *JAK2*-mutant ET and concomitant cardiovascular risk factors, even in the absence of previous thrombosis
• *JAK2* (V617F) mutation (2 points)	
IPSET (International Prognostic Score for ET: predicts survival)[73]	
Risk factors (weight):	Low risk: 0 (median survival not reached)
• Age ≥60 y (2 points)	Intermediate risk: 1-2 points (median survival, 24.5 y)
• Previous thrombosis (1 point)	High risk: 3-4 points (median survival, 13.8 y)
• Leukocyte count >11 × 10^9/L (1 point)	

*Cardiovascular risk factors include hypertension, diabetes, and active tobacco use.

Una recente revisione dello score IPSET-trombosi (Barbui T et al. *Blood Cancer J.* 2015; 5:e369) ha distinto 4 gruppi di rischio:

a) **very-low risk** (età <60 anni, non precedenti trombotici e assenza di mutazione JAK2);
b) **low risk** (età <60 anni, non precedenti trombotici e presenza di mutazione JAK2);
c) **intermediate risk** (età ≥60 anni, non precedenti trombotici e assenza di mutazione JAK2);
d) **high risk** (età ≥60 o precedenti trombotici e presenza di mutazione JAK2).