

# International Working Group for Myeloproliferative Neoplasms Research and Treatment (IWG-MRT) Diagnostic Criteria for Post-PV MF and Post-ET MF<sup>1</sup>

Polycythemia vera (PV) and essential thrombocythemia (ET) progress to myelofibrosis (MF) at a rate of 10% and <4% over 10 years, respectively.<sup>2</sup> Careful monitoring of patients with PV and ET can facilitate early identification of disease progression to Post-PV MF and Post-ET MF.

Check off the major and minor criteria corresponding to a patient's clinical presentation. Add the number of check marks in the HIGHLIGHTED criteria in each column and compare the result against the totals required to meet IWG-MRT guidelines for diagnosis of Post-PV MF and Post-ET MF.

Source	Criteria	POST-PV MF		POST-ET MF		
		Major criteria	Minor criteria	Major criteria	Minor criteria	
Patient history	Previous diagnosis of WHO-defined PV	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	Previous diagnosis of WHO-defined ET	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Clinical examination	Increasing splenomegaly <sup>a</sup>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
	Development of at least 1 of the following constitutional symptoms: >10% weight loss in 6 months, night sweats, or unexplained fever	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Bone marrow biopsy	Bone marrow fibrosis <sup>b</sup>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
OTHER LAB RESULTS	Complete blood count	Anemia <sup>c</sup>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Biochemistry	Increased serum LDH <sup>d</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Blood film (smear)	Leukoerythroblastosis	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>TOTAL NUMBER OF HIGHLIGHTED CRITERIA</b> <input checked="" type="radio"/> <input type="radio"/>						
To meet IWG-MRT diagnostic criteria for this MPN »	Must have at least »	<input checked="" type="radio"/> 2				

ET = essential thrombocythemia; IWG-MRT = International Working Group for Myeloproliferative Neoplasms Research and Treatment; LDH = lactate dehydrogenase; PV = polycythemia vera; MPN = myeloproliferative neoplasm; WHO = World Health Organization

<sup>a</sup>Either an increase in palpable splenomegaly of ≥5 cm (distance of the tip of the spleen from the left costal margin) or the appearance of a newly palpable splenomegaly.

<sup>b</sup>Grade 2-3 according to the European classification: diffuse, often coarse fiber network with no evidence of collagenization (negative trichrome stain) or diffuse, coarse fiber network with areas of collagenization (positive trichrome stain). Grade 3-4 according to the standard classification: diffuse and dense increase in reticulin with extensive intersections, occasionally with only focal bundles of collagen and/or focal osteosclerosis or diffuse and dense increase in reticulin with extensive intersections with coarse bundles of collagen, often associated with significant osteosclerosis.

<sup>c</sup>Below the reference range for appropriate age, sex, and altitude of residence. For Post-PV MF, sustained loss of requirement for phlebotomy in the absence of cytoreductive therapy is sufficient. For Post-ET MF, must be accompanied by ≥2 g/dL decrease from baseline hemoglobin level.

<sup>d</sup>Above reference level.

**REFERENCES** 1. Barosi G. *Leukemia*. 2008;22:437-438. 2. Tefferi A. *Am J Hematol*. 2008;83:491-497.