

# Polycythemia Vera

## PROGNOSTIC FACTORS AND MODELS IN POLYCYTHEMIA VERA

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# Prognostic Models in Polycythemia Vera

Prognostic Score Definition	Prognostic variables	Risk Category
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*Thrombotic Risk*

<b>Conventional risk Stratification</b>	<ul style="list-style-type: none"> <li>• age &gt;60 years</li> <li>• thrombosis history</li> </ul>	<ul style="list-style-type: none"> <li>• low-risk (the absence of both risk factors): Thrombosis incidence 2.5x100 p/y</li> <li>• high-risk (at least 1 risk factor): Thrombosis incidence 5.0-10.9 x100 p/y</li> </ul>
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Risk of Death

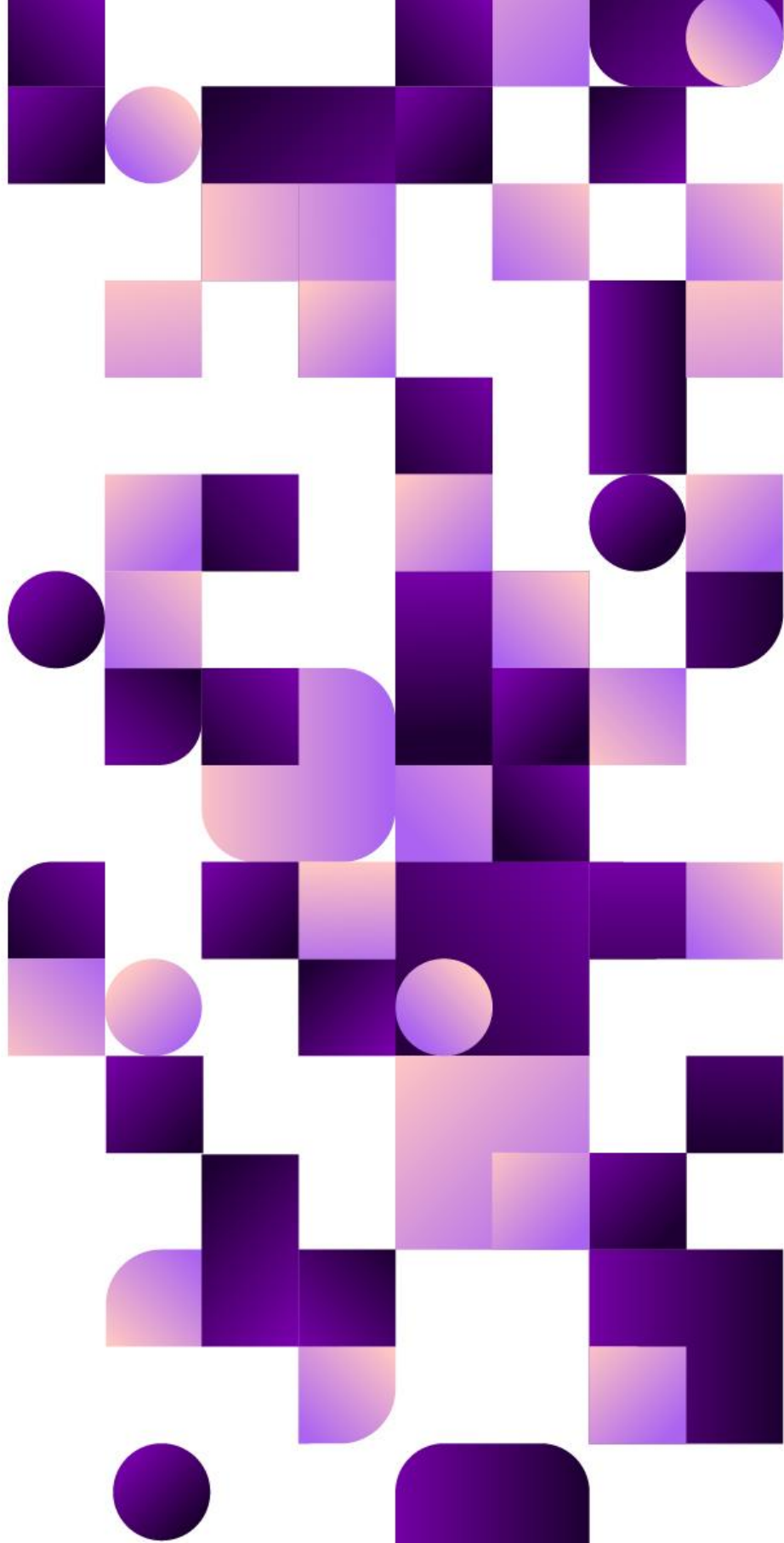
<b>MIPSS-PV</b>	<ul style="list-style-type: none"> <li>• Mutation in SRSF2 (3 points)</li> <li>• Age &gt;67 years ( 2 points)</li> <li>• Leukocytes count <math>\geq 15 \times 10^9/L</math> (1 point)</li> <li>• Thrombosis history (1 point)</li> </ul>	<ul style="list-style-type: none"> <li>• Low risk (0-1 point): median OS not reached</li> <li>• Intermediate risk (2-3 pints): median OS 10.3 yrs (HR 4.6)</li> <li>• High risk (&gt;3 pons): median OS 4.6 yrs (HR 24.1)</li> </ul>
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# Potential Novel Prognostic Factors in Polycythemia Vera

	Prognostic variables	Risk Category	Use in clinical practice
<b>Thrombotic Risk</b>	• <b>JAK2 V617F VAF &gt;50%</b>	• High Risk for Venous Thrombosis (HR 3.8)	
	• <b>Neutrophil-to-lymphocyte ratio (NLR) values <math>\geq 5</math></b>	• High Risk for Venous Thrombosis (HR 2.1)	
	• <b>Absolute neutrophil count (ANC) <math>\geq 22 \times 10^9/L</math></b>	• High Risk for Venous Thrombosis (HR 9.1)	
<b>Bleeding Risk</b>	• <b>Platelet count <math>&gt; 1.000 \times 10^9/L</math></b>	• promotes the development of an acquired von Willebrand syndrome	✓
<b>Disease Progression Risk</b>	• <b>JAK2 V617F VAF &gt;50%</b>	• High Risk for progression in PPV-MF (HR 1.04; a 10% difference in VAF between two samples corresponds to a 40% increase in risk of PPV-MF)	
	• <b>Mutations in ASXL1, SRSF2, IDH2</b>	• High Risk for progression in PPV-MF or blast phase	
	• <b>WBC <math>\geq 35 \times 10^9/L</math></b>	• High Risk for Leukemia transformation (HR 24.2)	
	• <b>Treatment Exposure: Use of pipobroman or P32/chlorambucil</b>	• High Risk for Leukemia transformation (HR 4.0)	





Il presente documento è il prodotto finale del progetto *Clinical Assessment of resistance and Intolerance to Hydroxyurea as Criteria for Second-line Treatment in patients with Polycythemia Vera*, condotto nel corso del 2023 e 2024 dal Working Party GIMEMA sulle Neoplasie Mieloproliferative Croniche.

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Questo progetto è stato realizzato con il supporto non condizionante di **AOP Health**.

