Integrated Diagnostics for the Most Common Bleeding Disorder

A highly complex bleeding disorder affecting approximately 1% of the US population, von Willebrand disease is often misdiagnosed, particularly among women. Versiti’s integrated diagnostic algorithm blends functional testing with genetic analysis, resulting in precise and actionable insights for each unique patient.

CHART 1: VON WILLEBRAND DISEASE TESTING ALGORITHM

Clinical Evaluation:
History and Physical Examination

Positive Clinical Evaluation
Possible Bleeding Disorder

Initial VWD assays: VWF Antigen – VWF GPIbM - Factor VIII Activity – VWF Collagen III Binding

VWF Antigen <3

VWF Propeptide Antigen

Normal
Low

Acquired VWD
Type 3 VWD

Consider VWF Full Gene Sequence Analysis

VWF Antigen >3

Ratio of VWF GPIbM to VWF Antigen (GPIbM/VWF Ag)

Proporionate (VWF Ag @ GPIbM)

Disproportion (VWF Ag > GPIbM)

Type 1 VWD, Type 2N VWD or Hemophilia A

Type 1 VWD
Type 2 VWD (Type 2A, 2B, 2M or Platelet Type VWD)

Go To: Chart 2
Factor VIII Activity

Go To: Chart 3 VWF Multimers

CHART 2: FACTOR VIII ACTIVITY

Factor VIII Activity

Factor VIII Activity < VWF Ag

Probable Type 1 VWD

VWF Multimer Analysis

Abnormal Multimers
Normal Multimers

Reconsider Type 2A, 2B or Platelet Type VWD – Go To 3A

Consider VWF Propeptide Antigen

Proporionate >> VWF Ag

Type 1C VWD

Consider VWD Type 1C Sequence Analysis

CHART 3: VWF MULTIMERS

VWF Multimer Analysis

Normal Multimer

Consider Exon 2B Sequence Analysis
Pathogenic Variant

Type 2M VWD

Abnormal Multimer (Chart 3A)

2A, 2B or Platelet-Type VWD

VWD 2B Binding Assay

Normal
Platelet Count

Abnormal Binding Assay

Type 2B VWD

Consider VWF Exon 2B Sequencing
Pathogenic Variant

Type 2A VWD
Platelet Type VWD