

# THE SELF-BAT (SELF-ADMINISTERED BLEEDING ASSESSMENT TOOL) IS AN EFFECTIVE SCREENING TOOL FOR VON WILLEBRAND DISEASE IN WOMEN REFERRED TO HEMATOLOGY

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## INTRODUCTION

- Quantitation of bleeding symptoms has value in the assessment of hemorrhagic symptoms, particularly when used as a screening tool to identify patients in need of laboratory testing
- Most Bleeding Assessment Tools (BATS) are expert administered, however a self-administered BAT could prove useful in many settings
- Our objective was to test the diagnostic utility of the Self-BAT as a screening tool for women referred to Hematology for the first time for evaluation of a possible bleeding disorder

## METHODS

- We developed the Self-BAT by converting the ISTH-BAT (International Society on Thrombosis and Haemostasis) into lay language
- We optimized the Self-BAT by studying individuals previously known to have Type 1 VWD and healthy controls
- Revisions were made until the Intraclass Correlation Coefficient of the Self-BAT Bleeding Score (BS) and the ISTH-BAT BS was high at 0.87
- The optimized version was then given to women referred to Hematology for first time assessment of a possible bleeding disorder

## RESULTS

### Sample Question from Self-BAT

9. Have you ever had a period?  Yes  No (skip to 10)

Are you:  
 Pre-menopausal  Post-menopausal

\*If you are post-menopausal, please answer the following questions to the best of your ability

9.1 Were/are your periods regular?  Yes  No

please check all that applies to the heaviest period you ever had:

- I had to change my pad/tampon more often than every 2 hours
- the period lasted for more than 7 days
- I passed clots and had flooding
- Spotting mid-cycle

9.2 Have you stayed at home from work/school more than twice a year because of heavy bleeding?  Yes  No

9.3 Have your periods been heavy from the get-go?  Yes  No

9.4 How long have you had a problem with heavy periods?  1 year or less  more than 1 year

9.5 Have you ever made an appointment to talk to a doctor about your heavy periods?  Yes  No

9.6 Have you ever been given medical treatment for heavy periods?  Yes  No

If yes, please check all of the treatments that you have had:

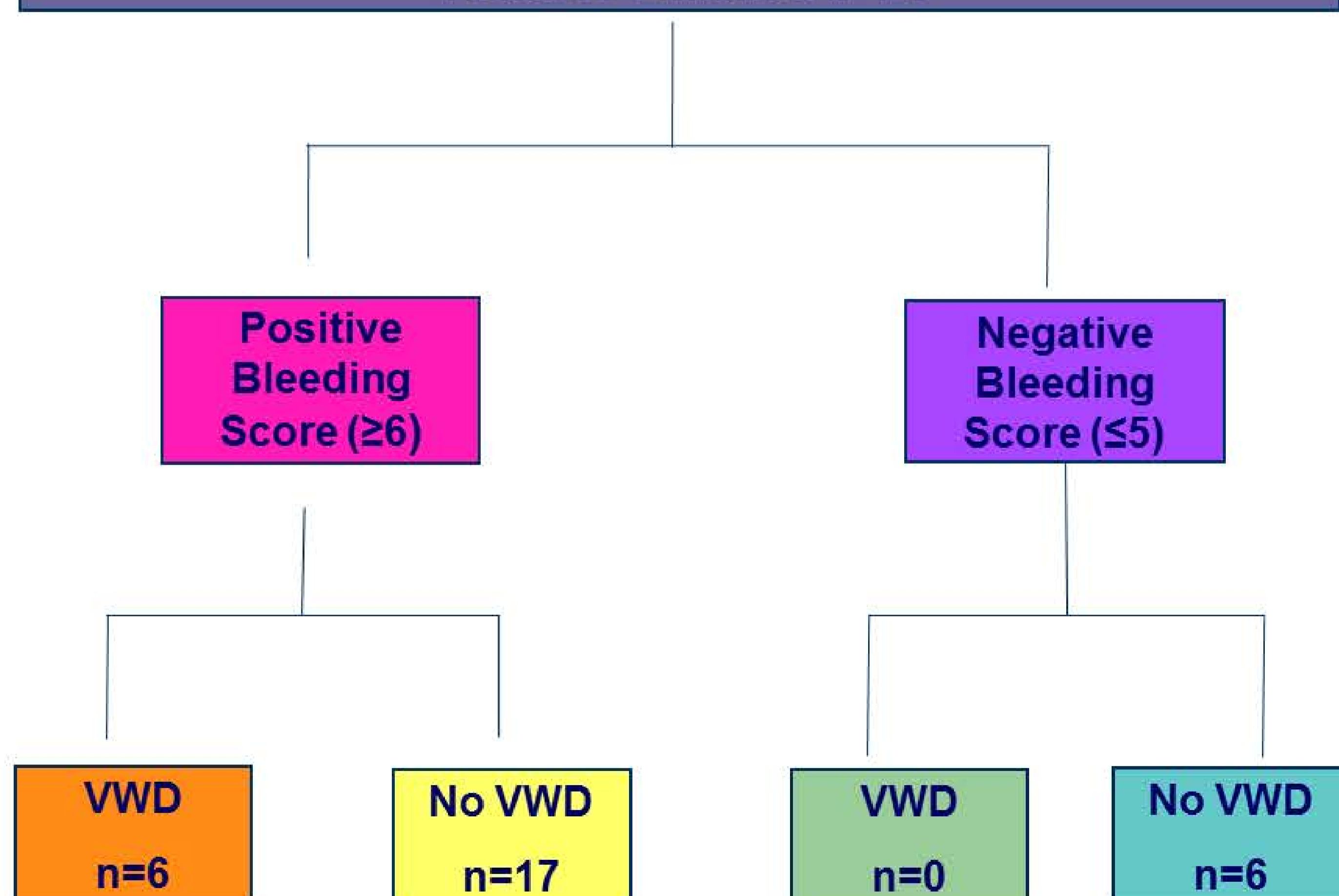
- I was on iron or on other medications (liquid or pills) at least once
- I was given the birth control pill because of heavy periods
- I was given the birth control pill as well as on other pills
- I had surgery to stop the bleeding at least once (e.g. removal of the womb, burning (ablation) or scraping (curettage) of the lining of the womb)
- I was given a medication intravenously (IV), or with a needle under the skin at least once
- I was given a blood transfusion at least once
- I was admitted to hospital at least once
- I was given a treatment but don't know what it was
- I was given medication for pain associated with cramping

Comments: \_\_\_\_\_

### Characteristics of Patients

	VWD (n=6)	No VWD (n=23)	P value
Mean Age (range)	35 (18-50)	41 (19-68)	0.368
Median Bleeding Score (range)	9 (6-14)	7 (2-31)	0.864
Blood Group O (%)	4/4 (100)	8/14 (57)	0.245
VWF:Ag (U/ml), mean (range)	0.59 (0.38-1.11)	1.08 (0.63-1.91)	0.003
VWF:RCo (U/ml), mean (range)	0.52 (0.25-1.16)	1.12 (0.68-2.08)	0.003
FVIII:C (U/ml), mean (range)	0.61 (0.40-0.94)	1.41 (0.84-2.62)	<0.001
Ferritin (µg/L), mean (range)	25 (4-42)	47 (8-190)	0.223
Hemoglobin (g/dL), mean (range)	131 (114-140)	135 (116-149)	0.328
Platelet Count (x10 <sup>9</sup> /L), mean (range)	291 (174-352)	238 (139-319)	0.062

### Females Enrolled n=29



Analysis demonstrated a sensitivity of 100%, specificity of 26%,  
 PPV = 0.26 and NPV = 1.0 for VWD

### Outcome of Diagnostic Testing

Diagnosis	N (total = 11)
Type 1 VWD	5
Type 2N VWD	1
Hemophilia A Carrier	1
Hemophilia B Carrier	1
Ehlers Danlos	1
Fatty Liver	1
FXI Deficiency	1

## ACKNOWLEDGMENTS



## SUMMARY/CONCLUSION

Our preliminary data strongly suggest that the Self-BAT is an effective screening tool to incorporate into the hematologic assessment of women referred for a possible bleeding disorder.

Poster Category: Women and Bleeding Disorders

