Bleeding Disorders and Menstruation

How much is too much?

September 11, 2024 Bethany Samuelson Bannow, MD, MCR

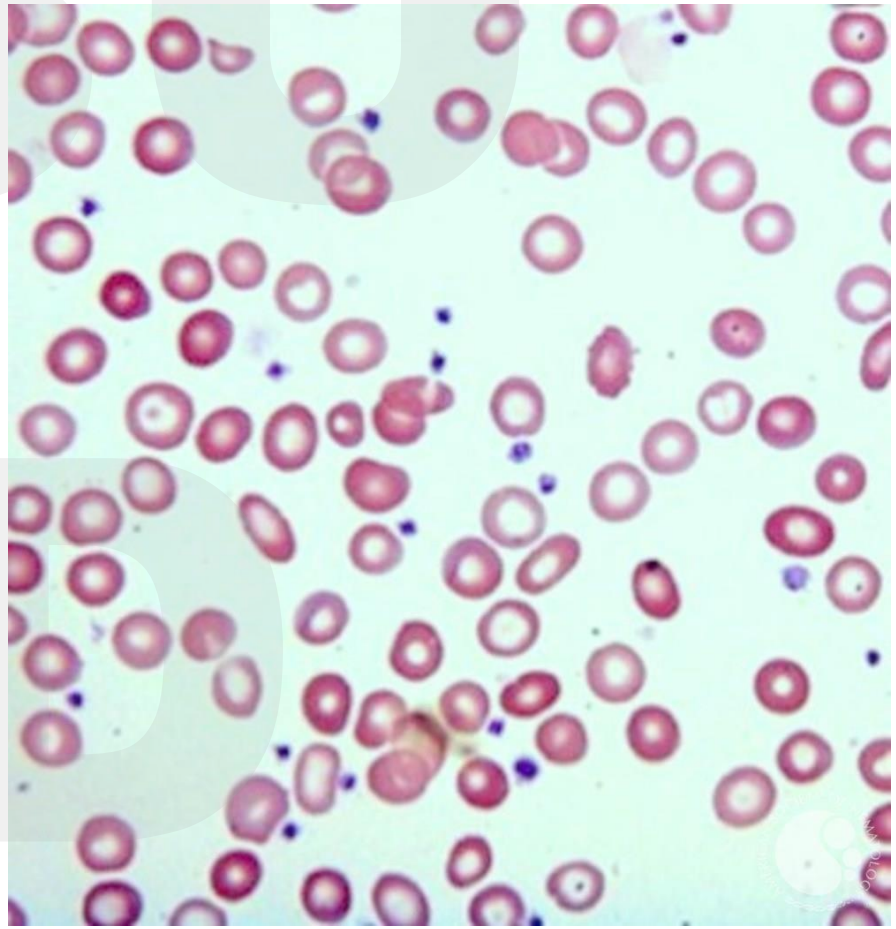
Objectives

By the end of this presentation you should be able to:

- Recognize defining features of HMB
- Explain the relationship between HMB and bleeding disorders
- Compare and contrast treatment options for HMB in patients with bleeding disorders

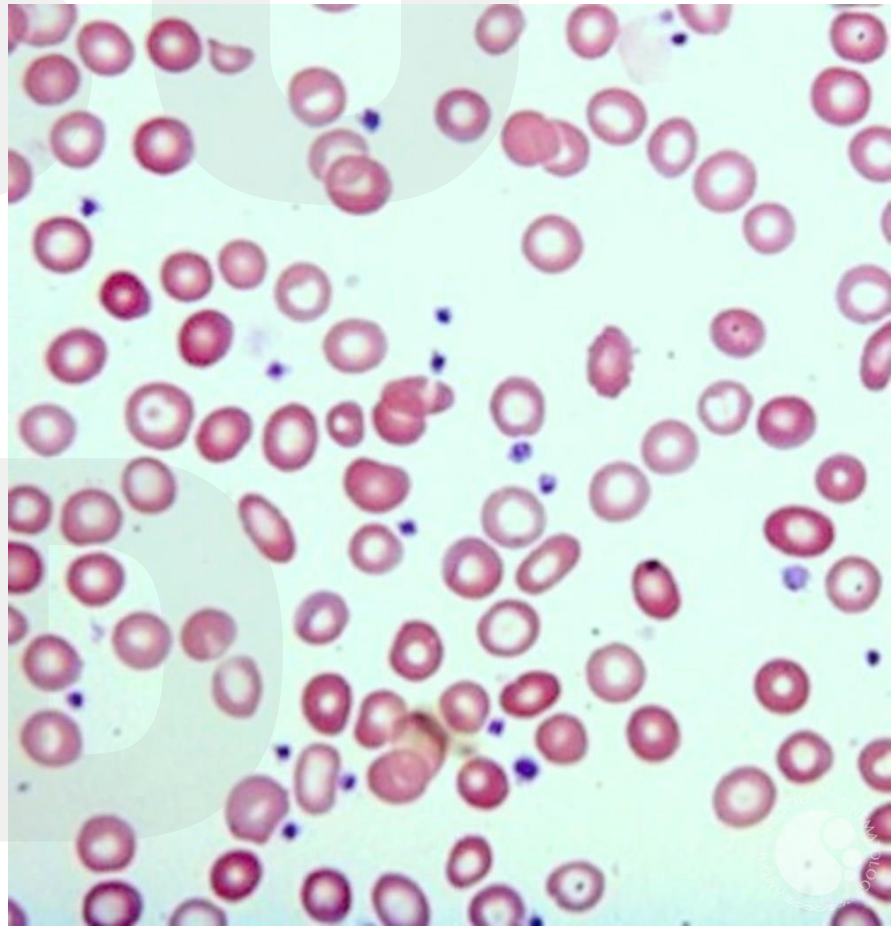
Case

- A 26 yo woman presents with anemia
  - Hemoglobin 8.0 g/dL, MCV 71
  - CBC otherwise WNL



Case

- A 26 yo woman presents with anemia
  - Hemoglobin 8.0 g/dL, MCV 71
  - CBC otherwise WNL
  - Reports anemia since age 16
  - Describes her periods as ‘normal’



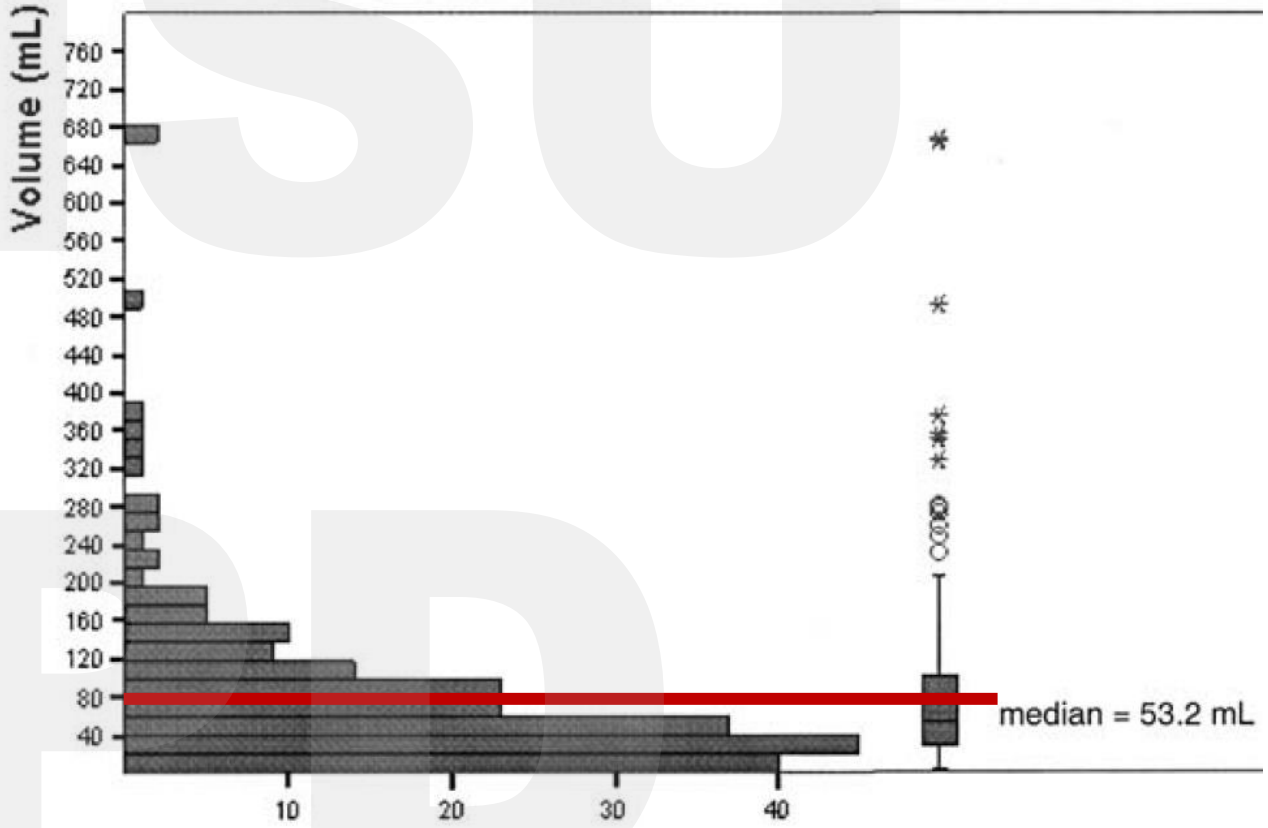
Always believe women. Unless they say their periods are normal… then ask more questions.

Normal or Abnormal?

- Average age of menarche: 12.5-12.7 years
- Average age of menopause: 51.4
- Average cycle length: 28 (21-35) days
- Average duration of menses: 2-7 days
- Median blood loss: 30-50 mL/cycle
- Heavy menstrual bleeding: ≥80 mL/cycle

Menorrhagia I

- 952 women from 3 hospitals
  - 782 completed menstrual evaluation questionnaires (MEQ)
  - 226 undertook menstrual collection
  - 34% had losses > 80mL/cycle



Warner et al AJOG (2004) 190

Menorrhagia I – Clinical Factors

Blood loss >80ml/cycle

- Changing protection ≥ hourly
- Low ferritin
- Clots > 1.1 inch

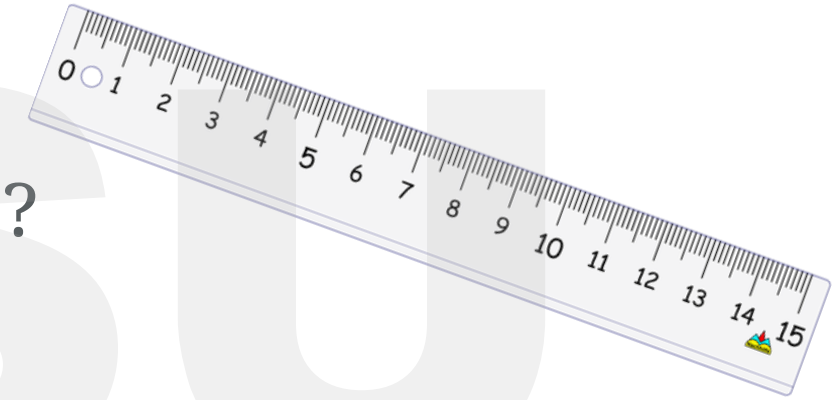
Increased blood loss

- “Very heavy” bleeding
- Changing protection overnight
- # products used/cycle

FIGO Definition

- “excessive menstrual blood loss that interferes with a person’s physical, social, emotional, or material quality of life”

Three questions…



- How often do you change protection?
  - Include wearing ‘double’ protection
- Do you pass clots >1 inch?
- Have you ever been diagnosed with iron deficiency?
  - Check a ferritin level

EHC

7-2-1 rule

What is a heavy period?

1 in 5 women will experience heavy periods. Heavy periods may be a sign of a bleeding disorder. These symptoms should alert you:

Your period lasts 7 days or more

Need to change menstrual protection more often than every 2 hours

Passing blood cloths larger than a 1€ coin

Warning!

- The following slides contain content which may be disturbing for some participants including:

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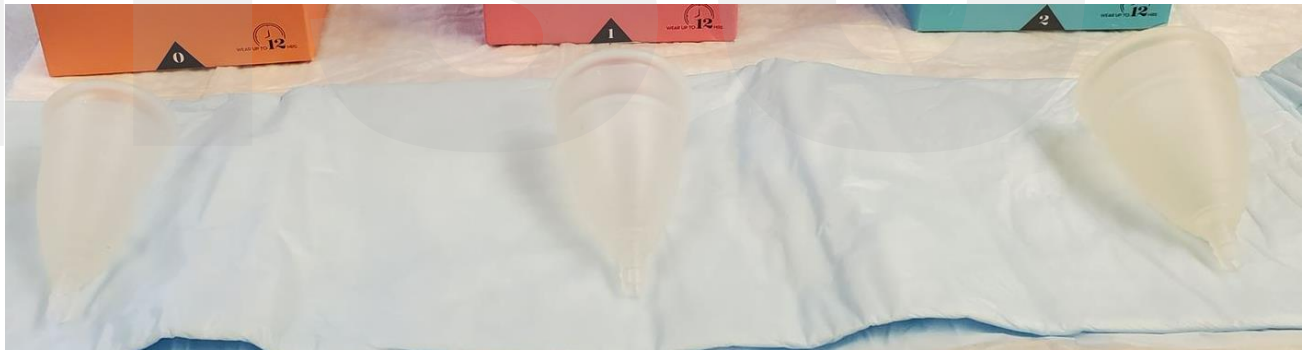
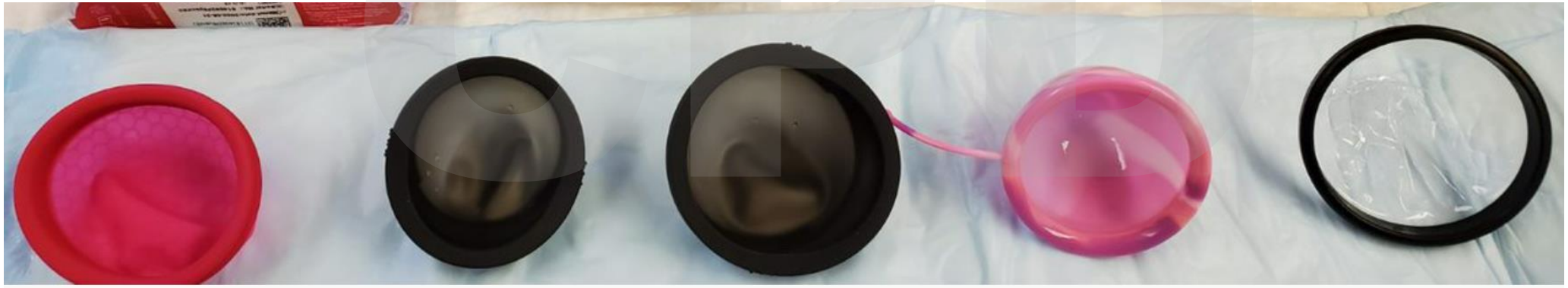
Alternative Period Products





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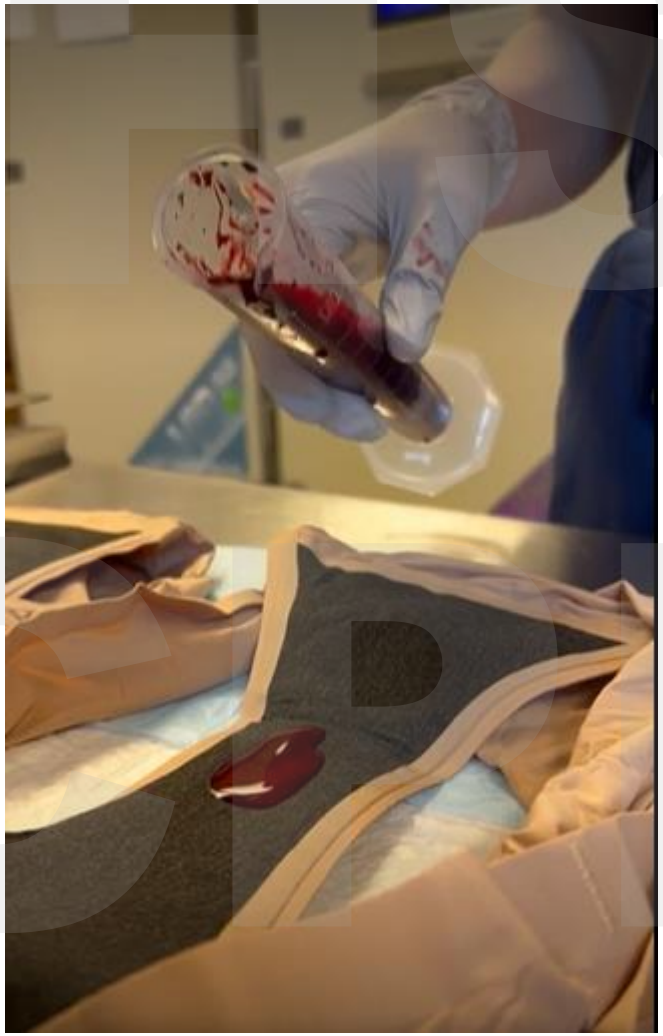
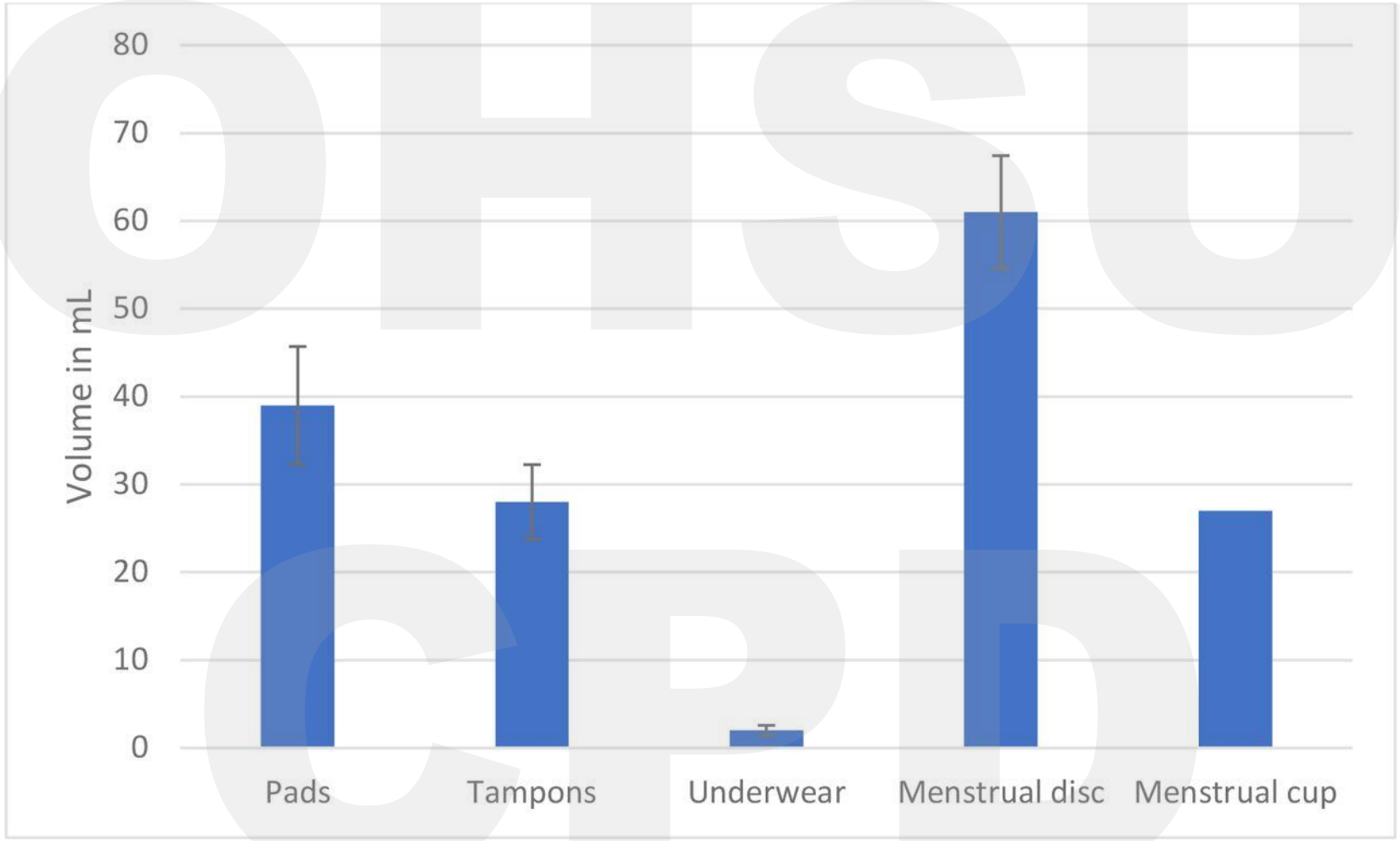


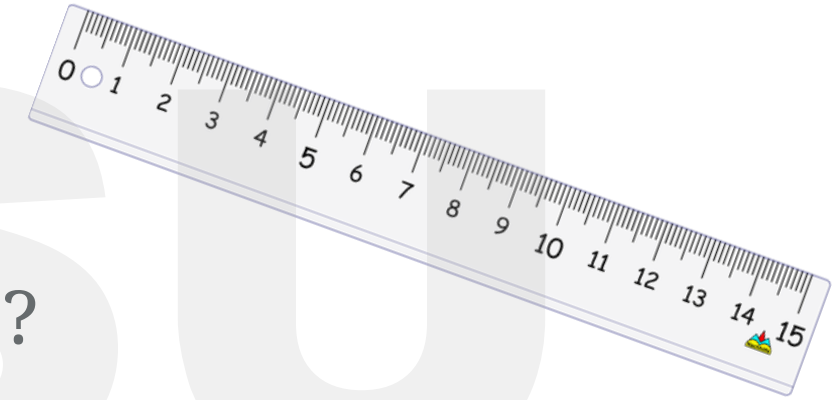
Average volume of red blood cells absorbed by each product category.



Emma DeLoughery et al. BMJ Sex Reprod Health 2024;50:21-26

BMJ Sexual & Reproductive Health

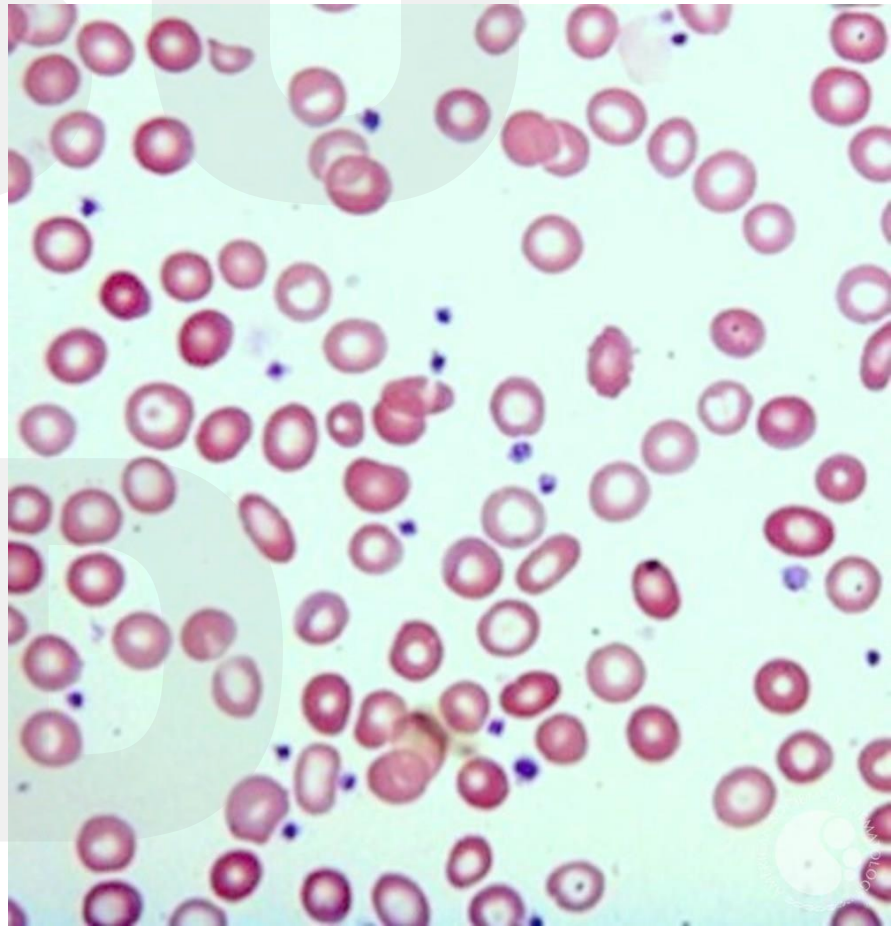
~~Three~~ Four questions…



- *What kind of protection do you use?*
- How often do you change protection?
  - Include wearing ‘double’ protection
- Do you pass clots >1 inch?
- Have you ever been diagnosed with iron deficiency?
  - Check a ferritin level

Case

- A 26 yo woman presents with anemia
  - Hemoglobin 8.0 g/dL, MCV 71
  - CBC otherwise WNL
  - Fills a menstrual cup every 3-4 hours
  - Frequently passes clots >1 inch
  - Ferritin 6 mcg/L



HMB and Bleeding Disorders

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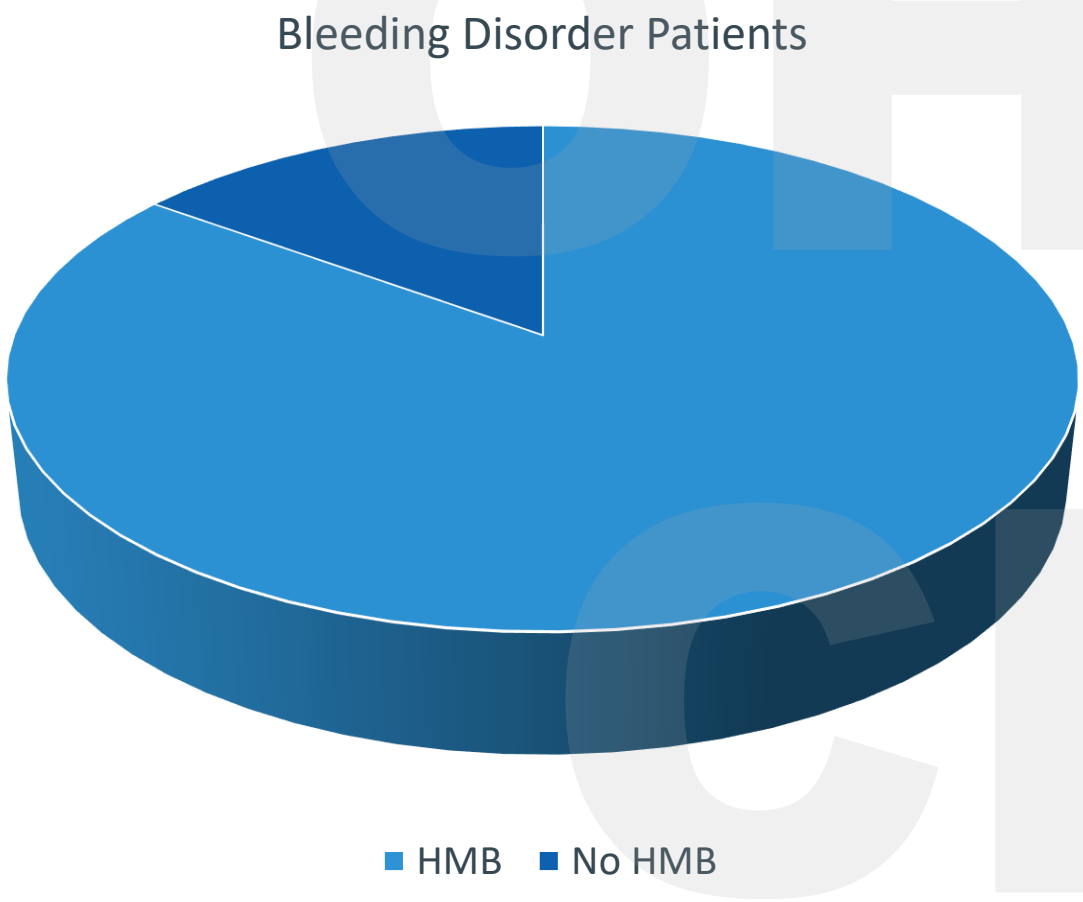
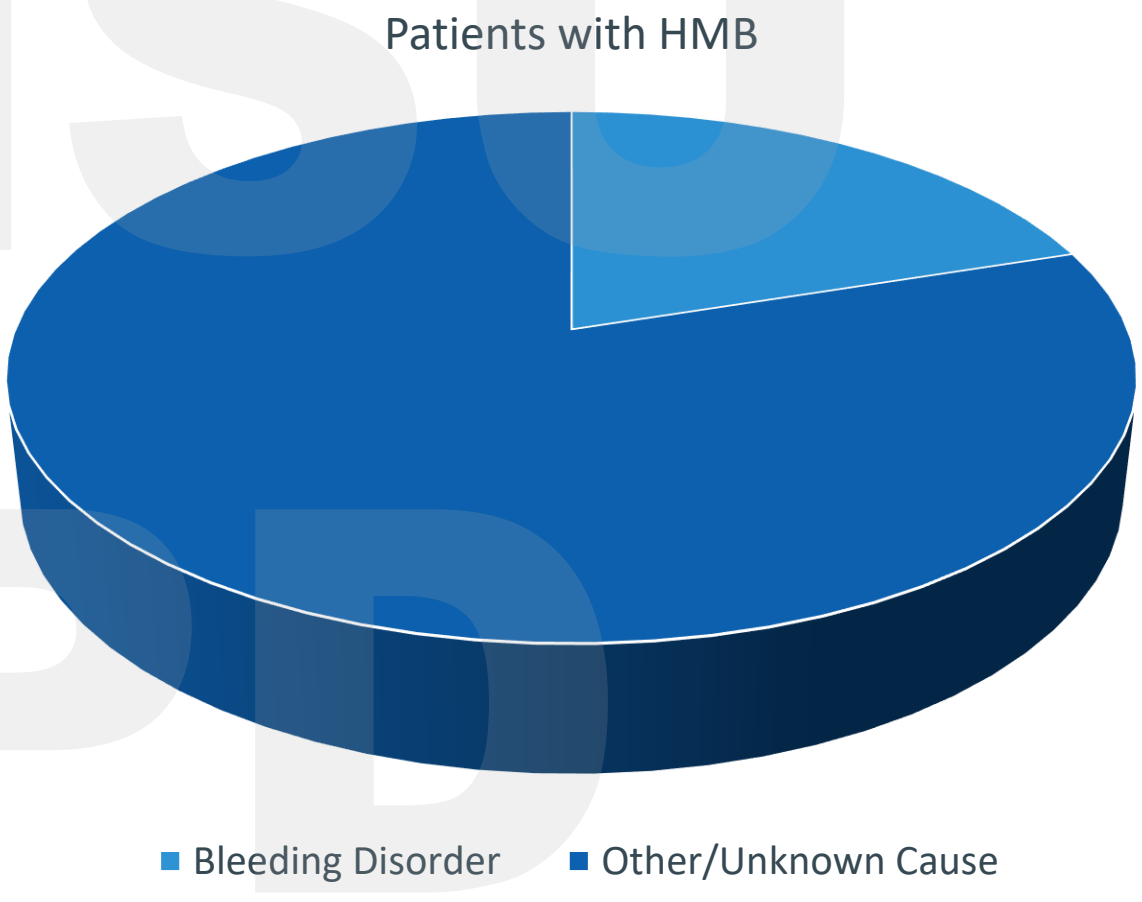




Patients Presenting with HMB

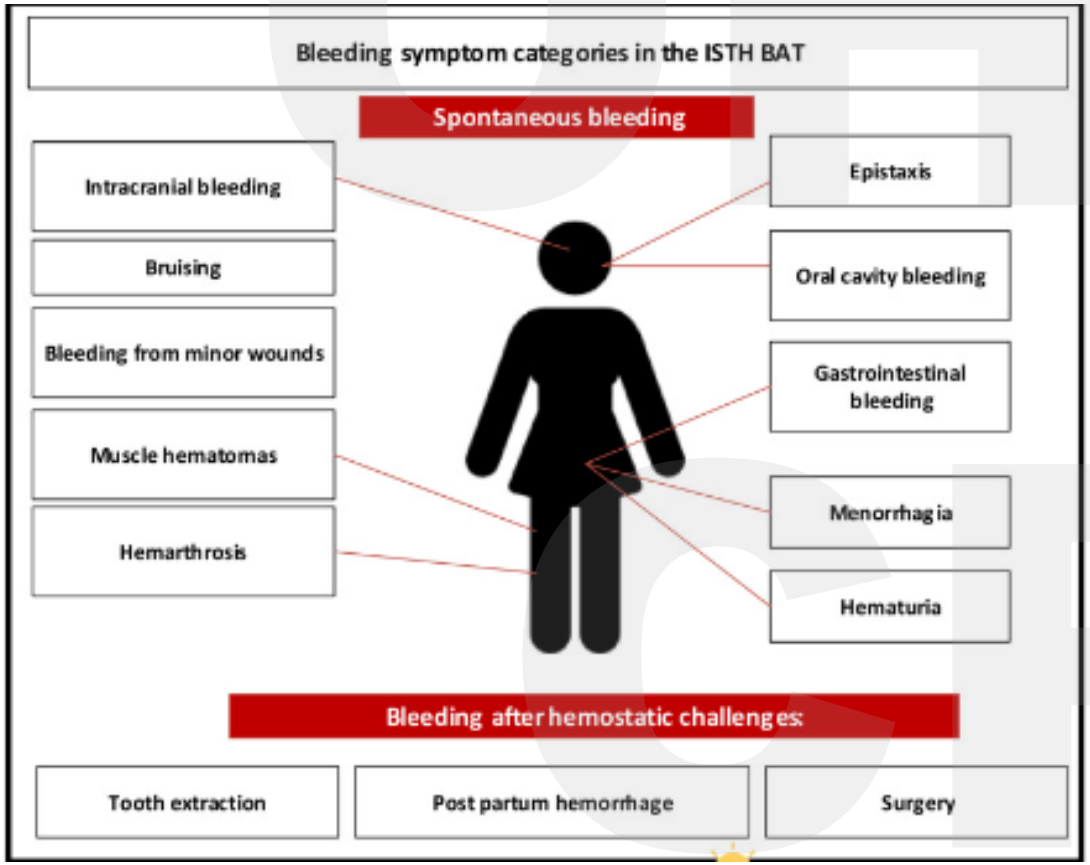
- Bleeding history
- Family history
- Ferritin + CBC
- Gynecology referral

LET'S TALK PERIOD

HOME ABOUT OUR THINKING SELF-BAT RESOURCES

www.letstalkperiod.ca

Patients Presenting with “HMB+”



- “Plus”
  - Non-menstrual bleeding
    - Bruising – maybe
  - Family history of inherited bleeding disorder

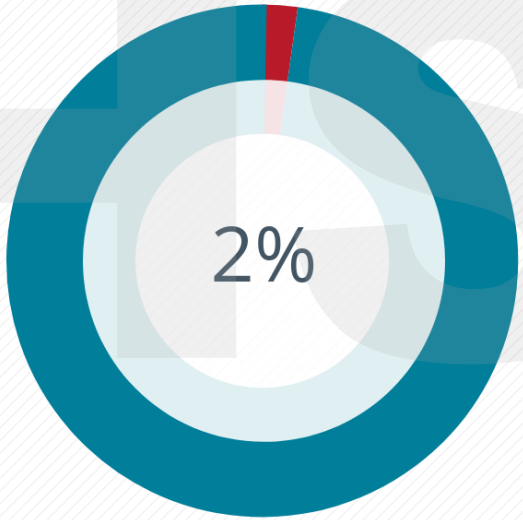
Patients Presenting with “HMB+”

- Consider
  - PT, PTT, fibrinogen
  - Von Willebrand panel
  - Hematology referral
- Remember
  - 1/3 menstruating individuals will have HMB
  - 80-90% will not have a bleeding disorder

WOMEN and bleeding disorders

1 in 10

10% of women with heavy menstrual periods may have a bleeding disorder



women who get tested for bleeding disorders

Von Willebrand Disease (VWD)

Most common bleeding disorder in women

Intl. Women's Day May 8

Have questions? Consult your physician

EHC
european haemophilia consortium

Frequency of Inherited Bleeding Disorders

Frequency	Disorders
1/100 (1%)	Von Willebrand disease
1/5,000 (0.02%)	Hemophilia A*
1/50,000 (0.002%)	Hemophilia B*
1/500,000 (0.0002%)	FVII deficiency
1/1,000,000	Fibrinogen disorders, FV deficiency, FX deficiency, FXI deficiency
1/2,000,000	FII deficiency, FXIII deficiency

Frequency of IBDs

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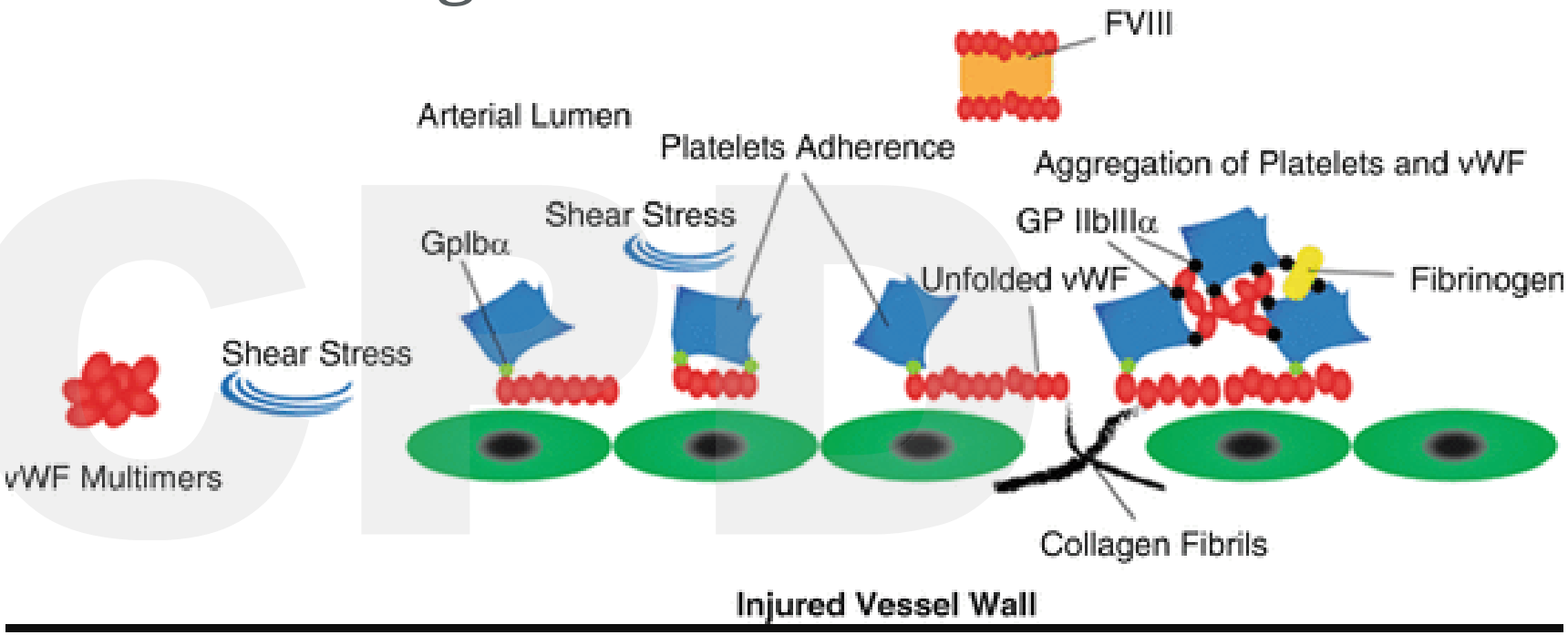
1/500,000 (0.0002%)	FVII deficiency
1/1,000,000	Fibrinogen disorders, FV deficiency, FX deficiency, FXI deficiency
1/2,000,000	FII deficiency, FXIII deficiency

Von Willebrand Disease

- Most common
- Mucocutaneous bleeding
- Trauma-related bleeding



https://link.springer.com/chapter/10.1007/5584_2016_122

Von Willebrand Disease

01

Type 1

- Quantitative defect
- VW activity 3-49%

02

Type 2

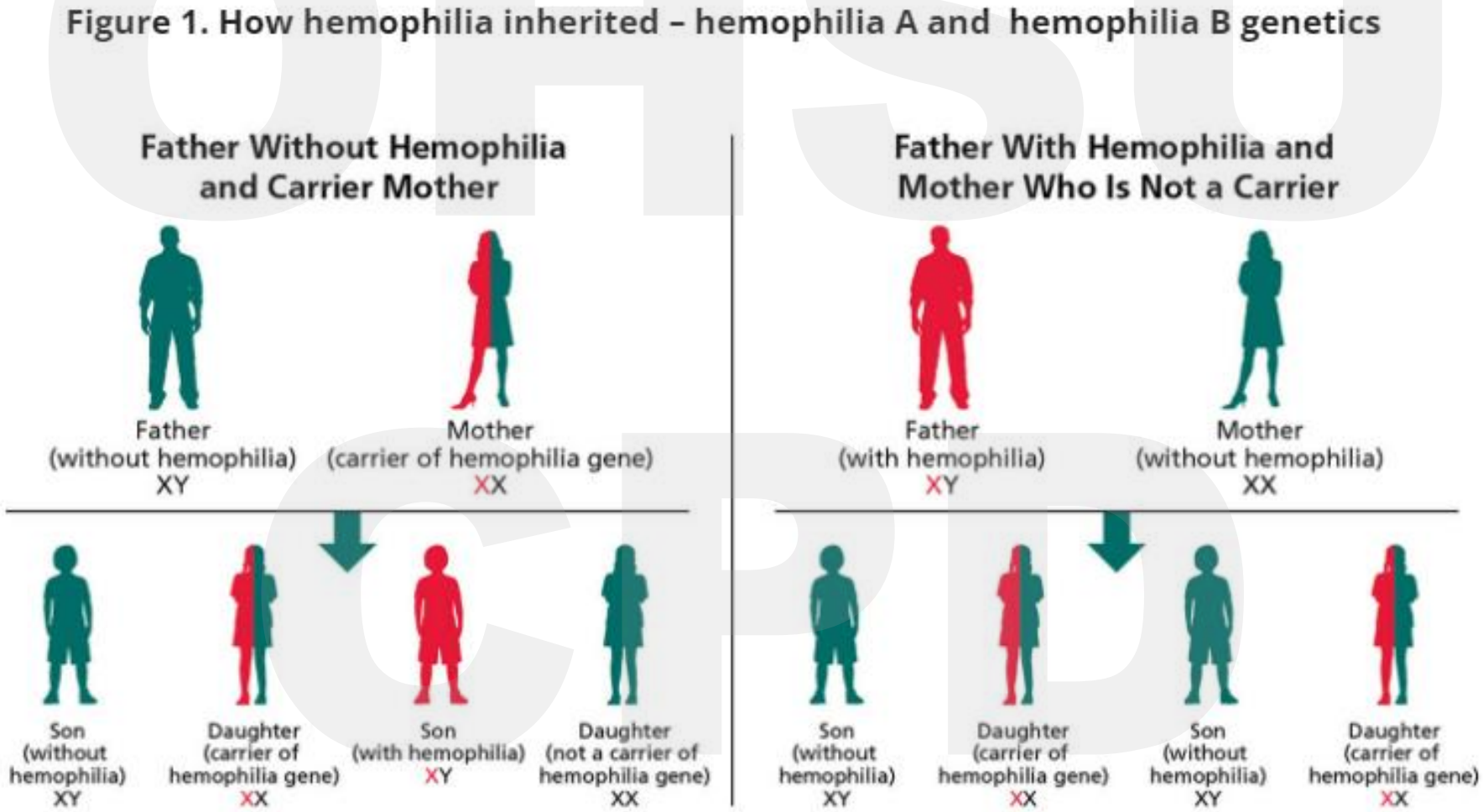
- Qualitative defect
- Over/under function
- Defective interactions (FVIII, platelets)

03

Type 3

- Absence of VWF

Hemophilia “Carriers”



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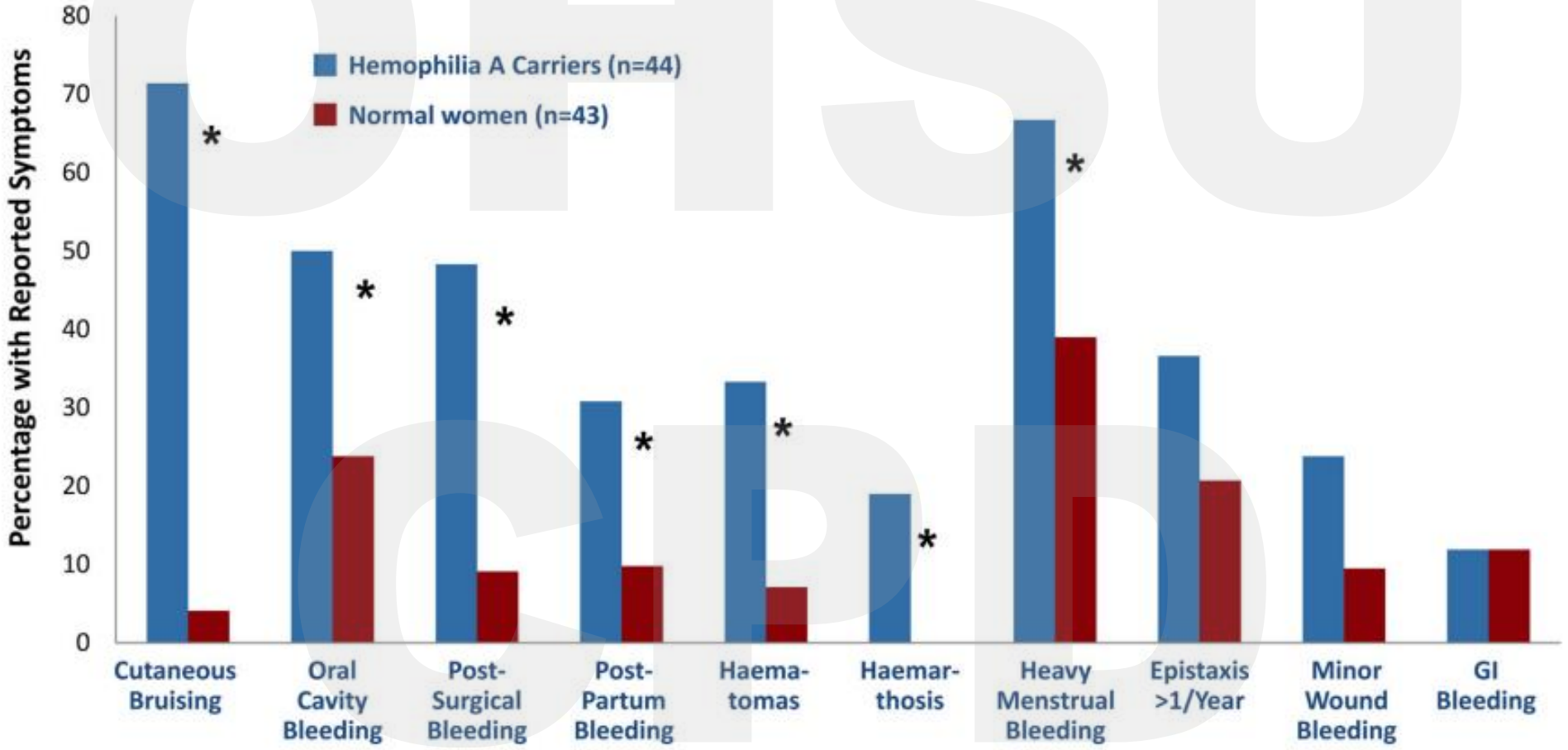

*Fisher’s Exact Chi Square p value <0.05

Wheeler et al British J Haematol 2015

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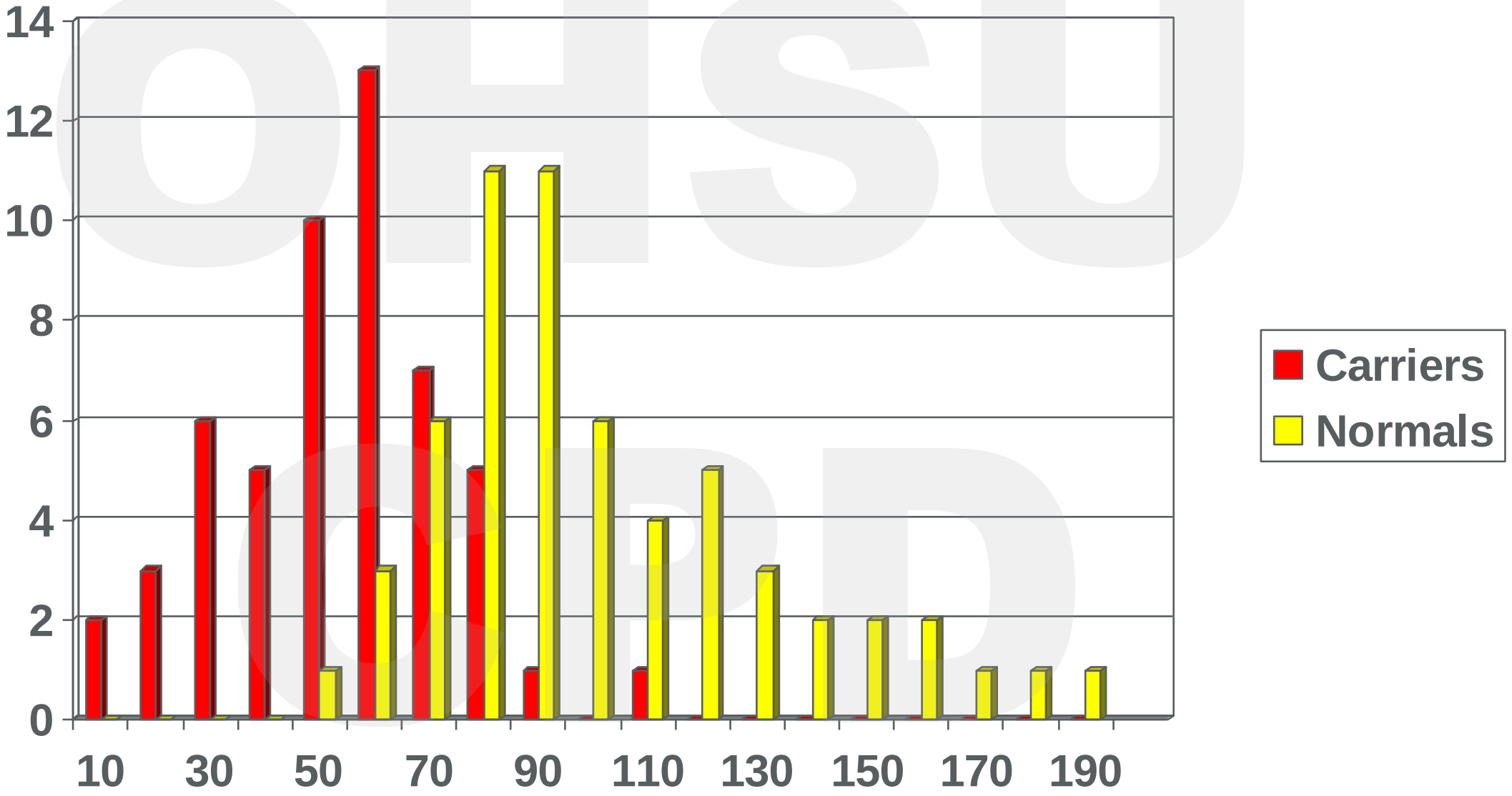

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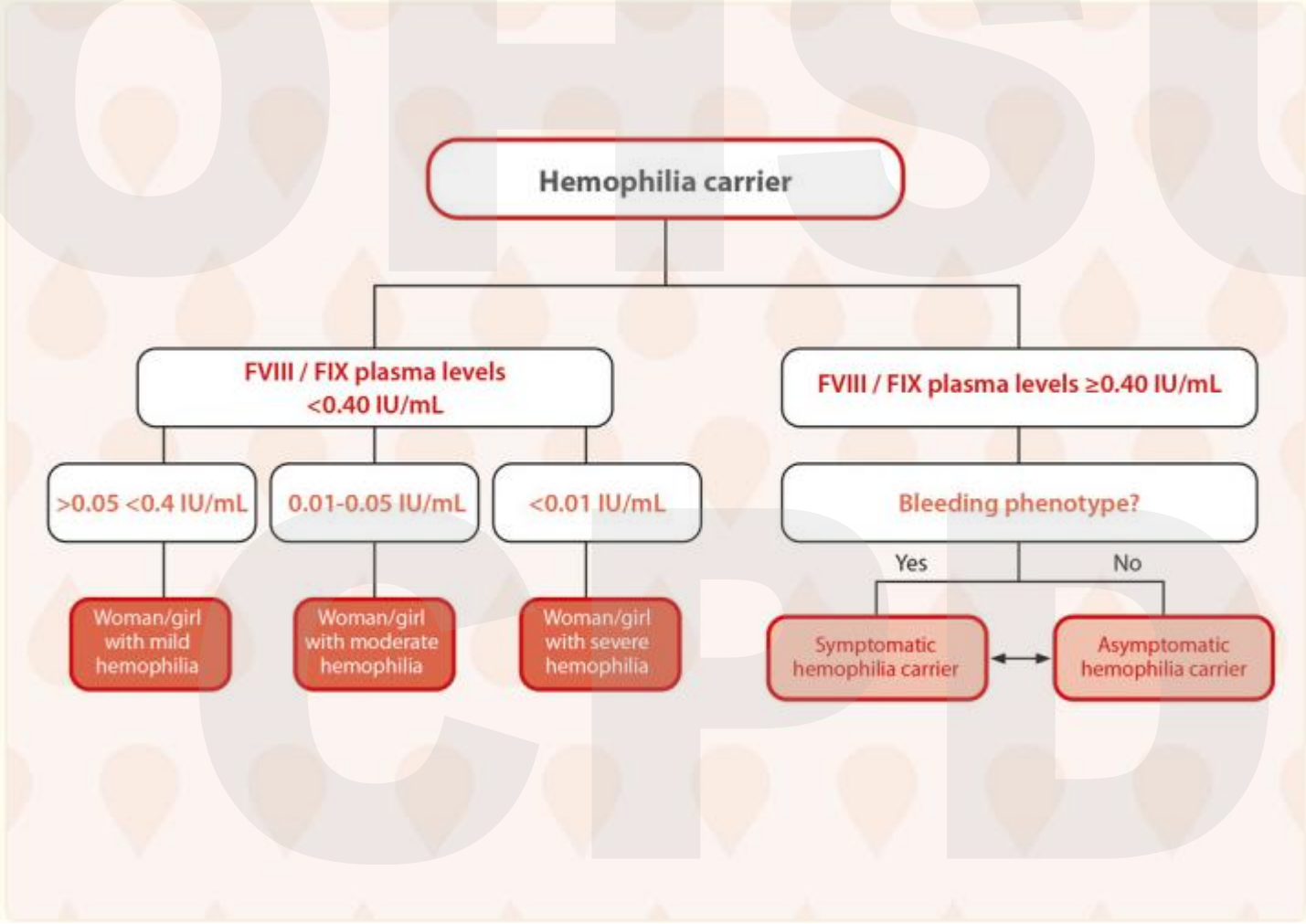

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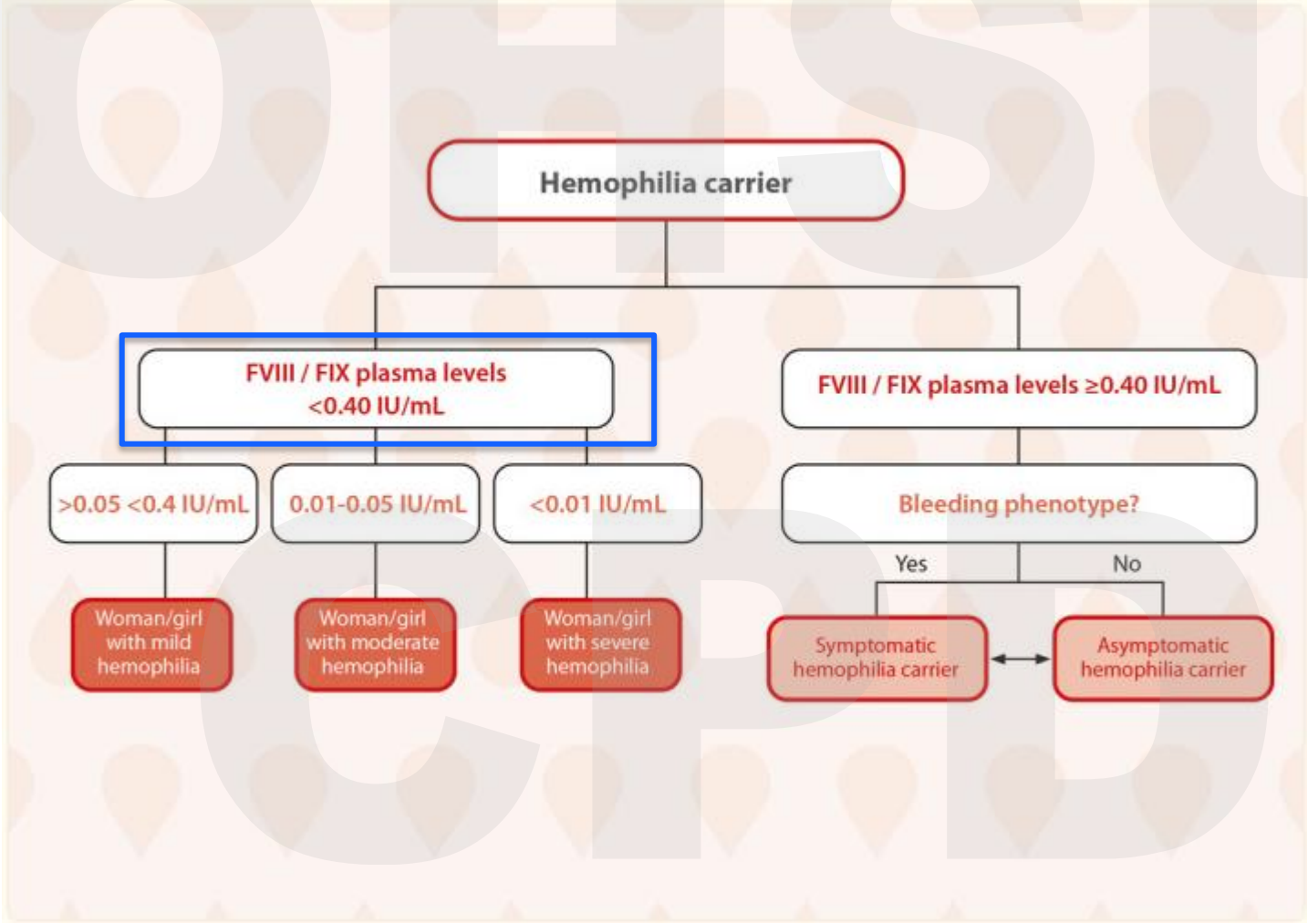

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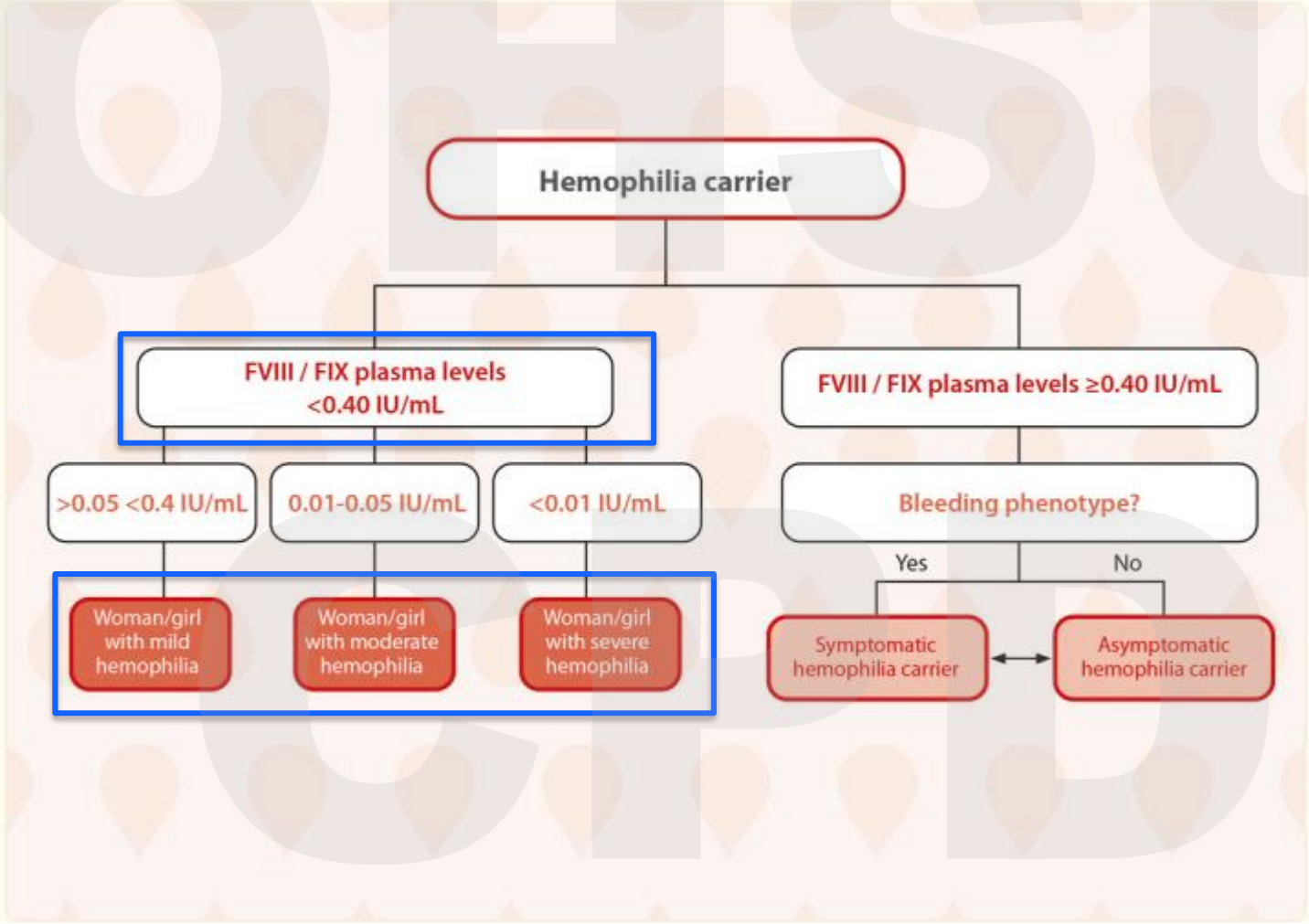

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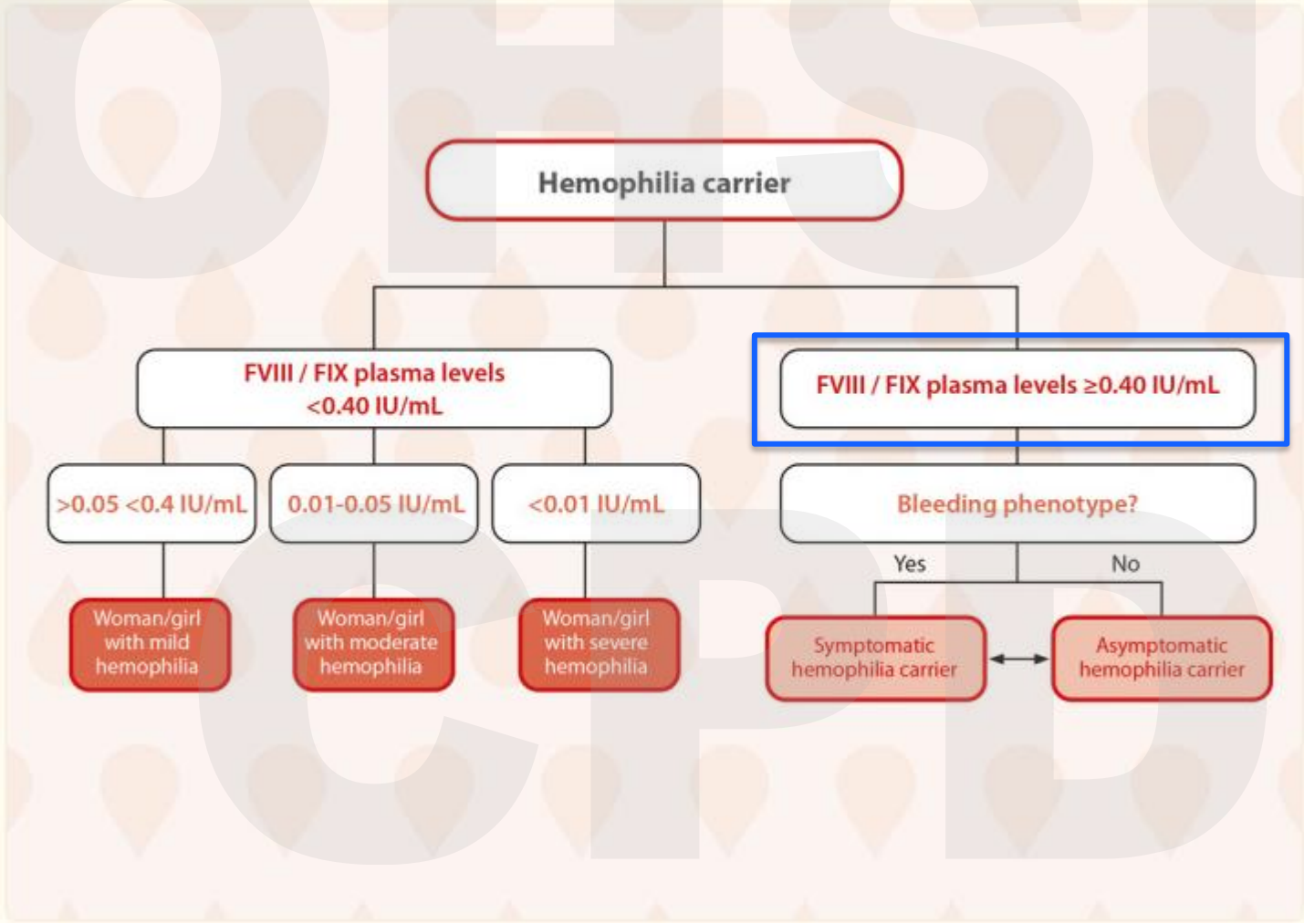

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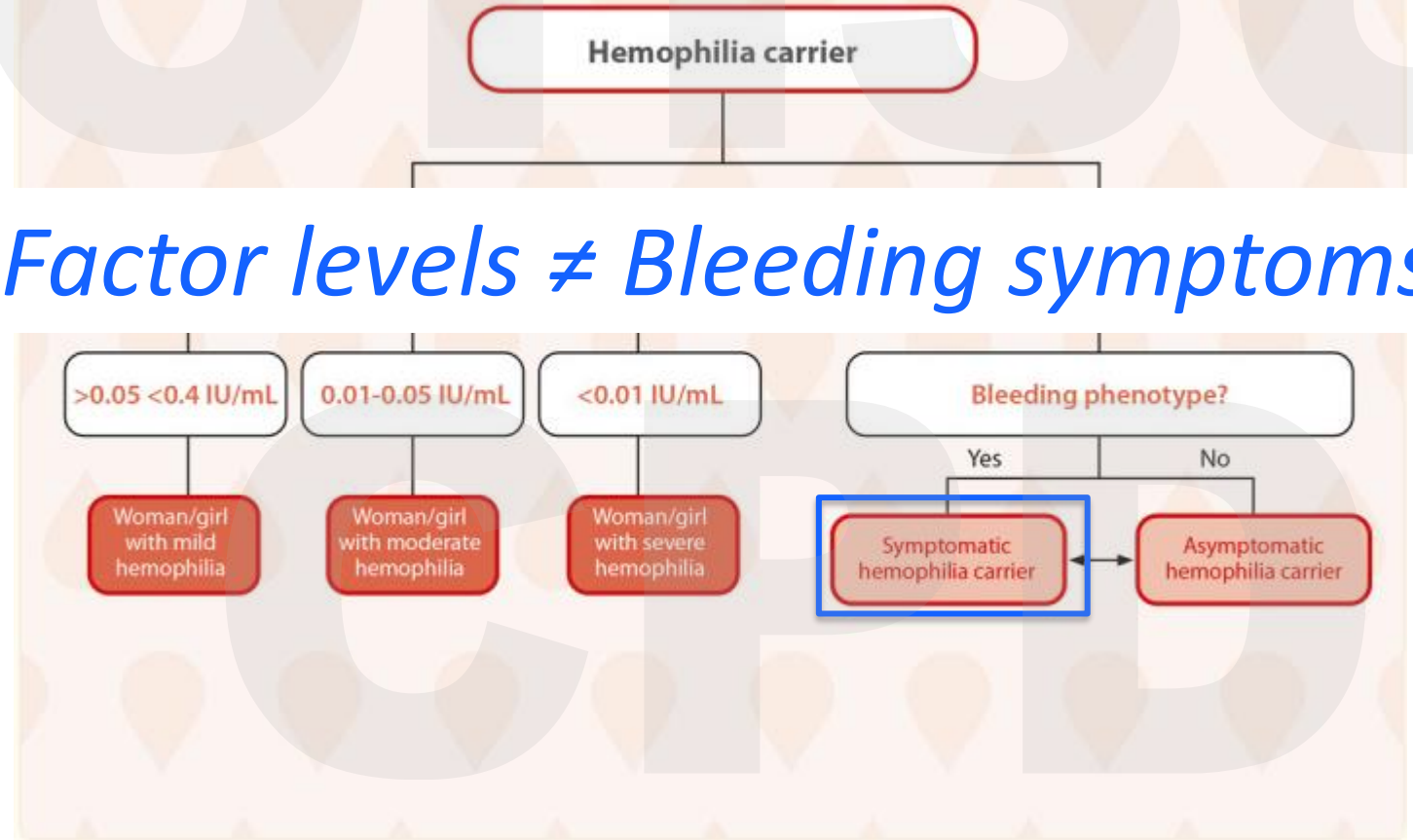

Factor levels ≠ Bleeding symptoms

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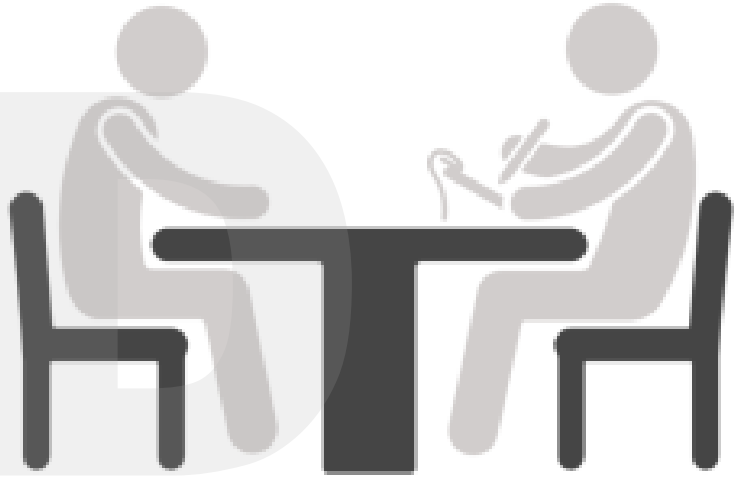
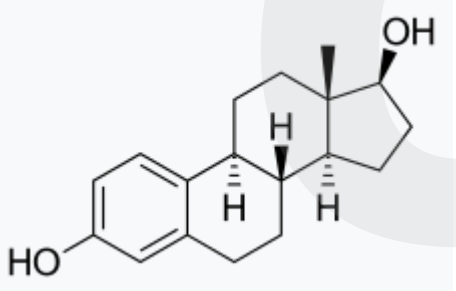
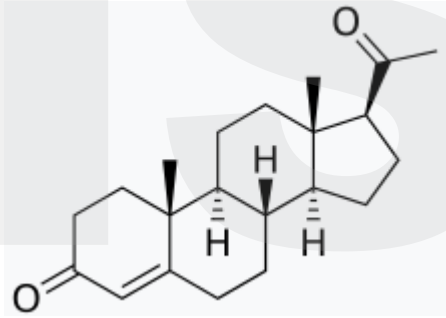
Management of HMB

- Hormonal therapy
- Hemostatic agents
- Procedural interventions
- Iron supplementation!



Hormonal Therapies - Combined





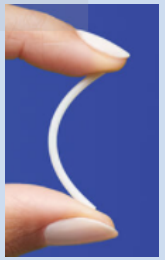
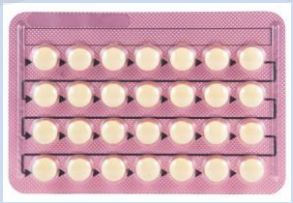
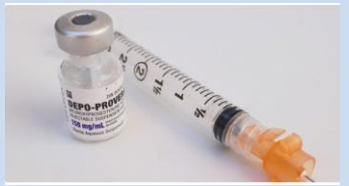
Estrogen

Progestin

Can be used to skip menses

91% effective

Progestin-Only Therapies

	Levonorgestrel IUS (Mirena®, Liletta®, Skyla®)	Etonogestrel implant (Nexplanon®, Implanon®)	Progesterone only pills	Depomedroxy-progesterone IM (Depo Provera®)
				
Amenorrhea rate	40%	20%	N/A	>50%
Bleeding pattern impact	↓ blood loss, ↑ irregular bleeding (early)	↓ blood loss, ↑ irregular bleeding	↑ irregular bleeding	↓ blood loss, ↑ irregular bleeding (early)
Contraceptive efficacy	>99%	>99%	Low	>95%

Van Hylckama et al Arterioscler Thromb Vasc Biol (2010) Le Moigne et al Haematologica (2016)

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		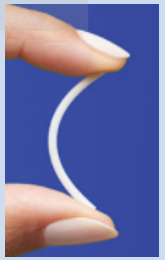	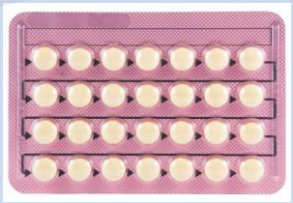	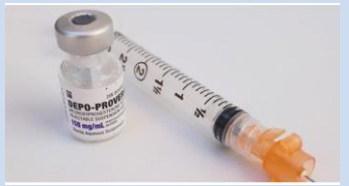
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		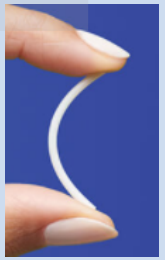	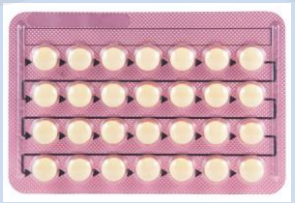	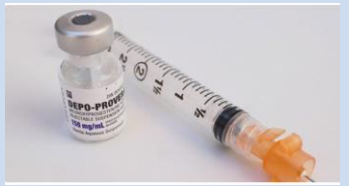
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		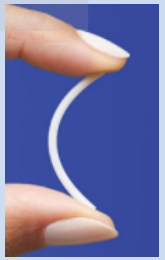	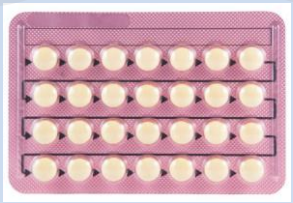	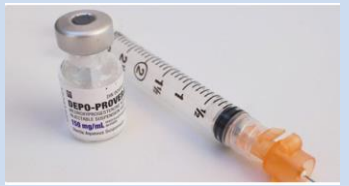
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		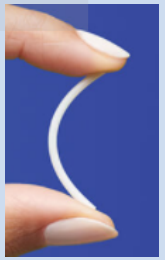	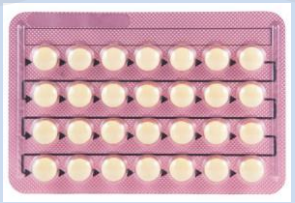	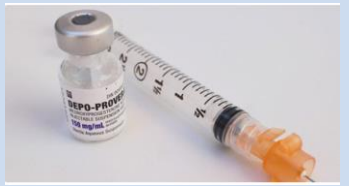
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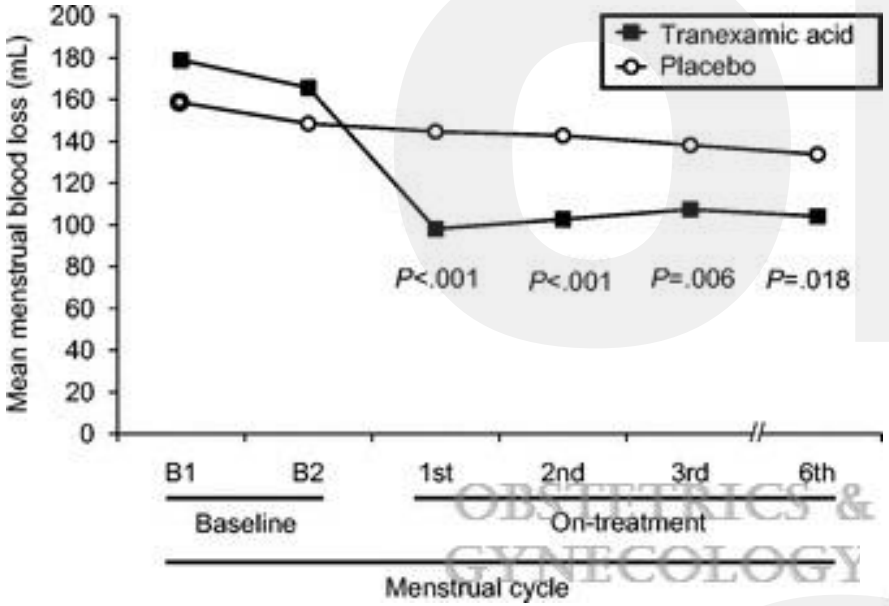
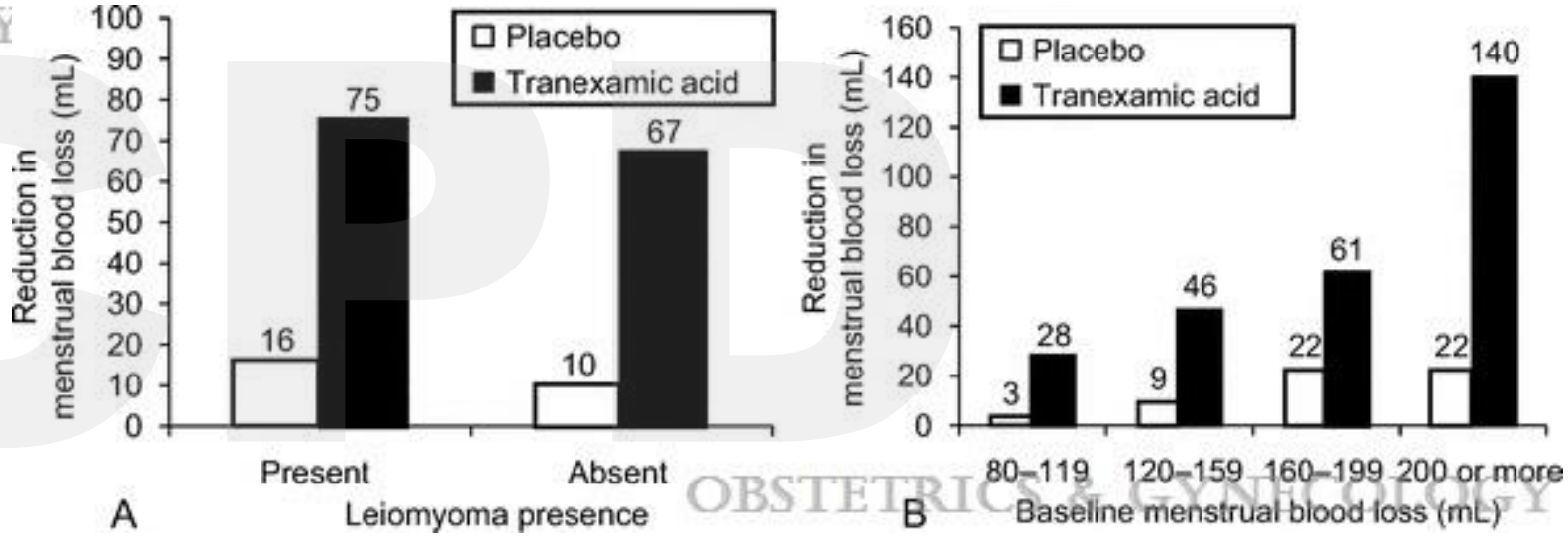
Contraceptive efficacy	>99%	>99%	Low	>95%

Van Hylckama et al Arterioscler Thromb Vasc Biol (2010) Le Moigne et al Haematologica (2016)

Antifibrinolytics

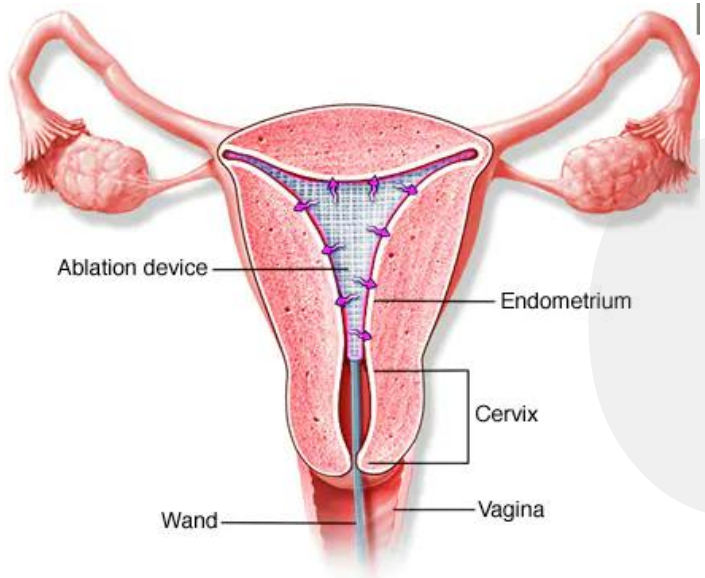


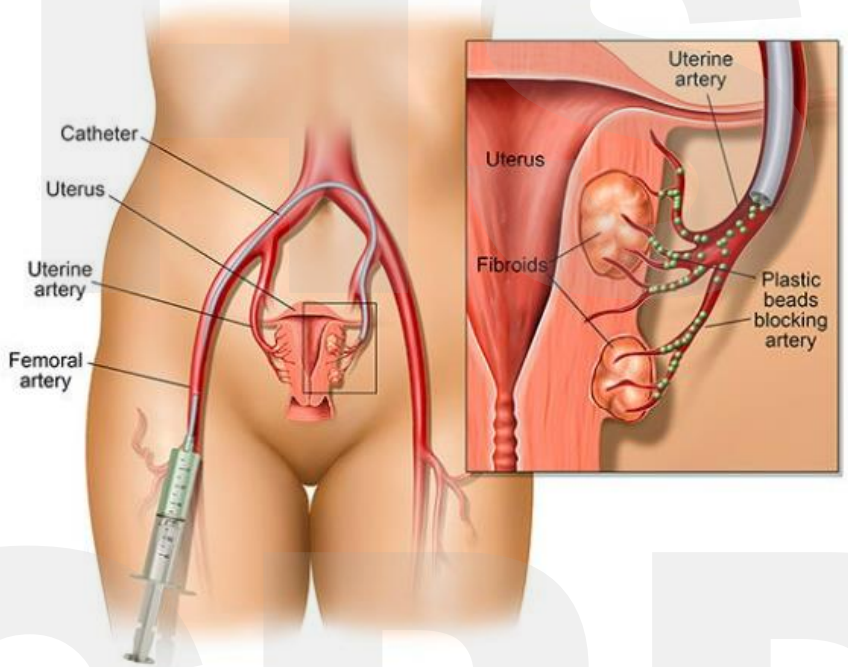
GoodRx

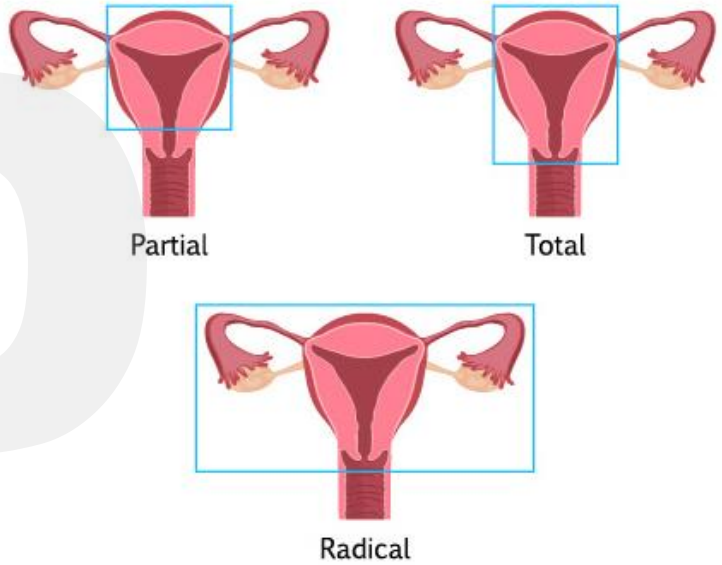


Lukes et al, Obstetrics & Gynecology, 2010

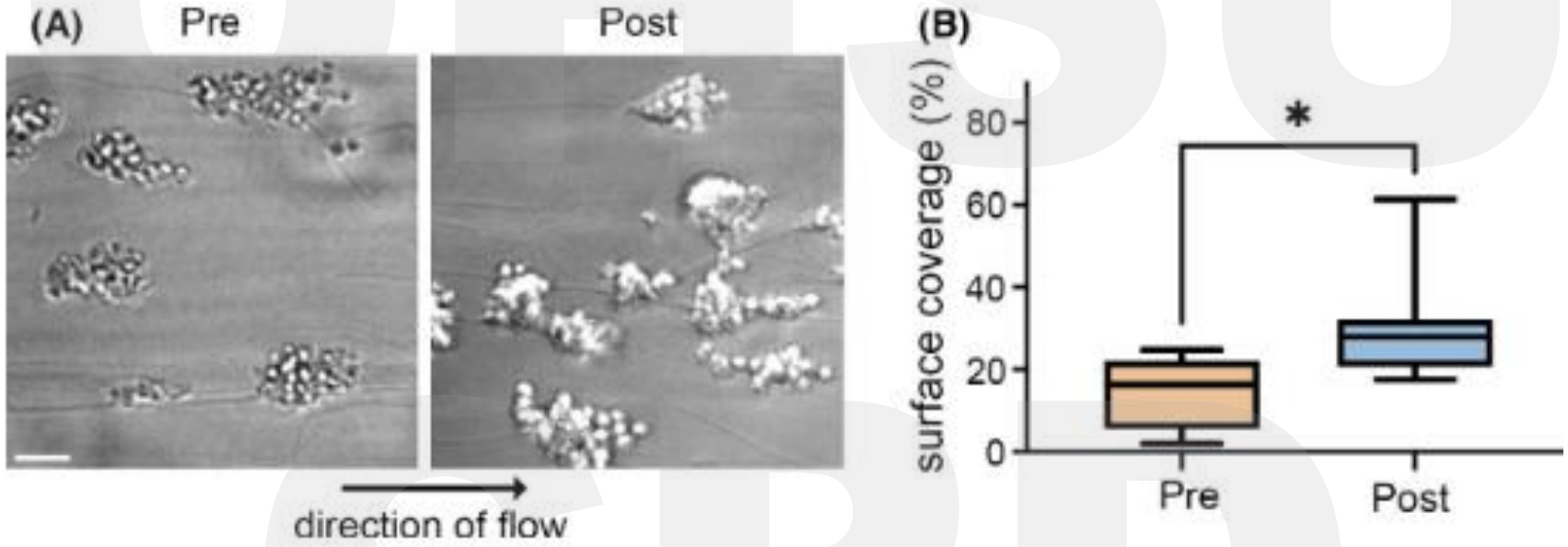
Procedural Therapies







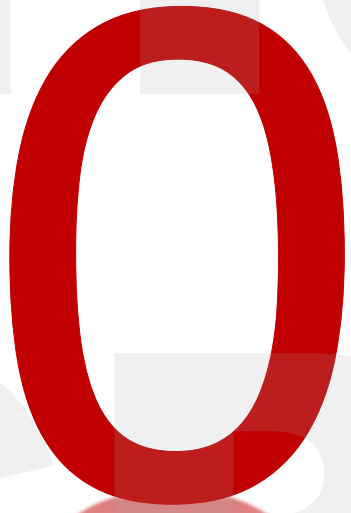
Iron Deficiency & Bleeding



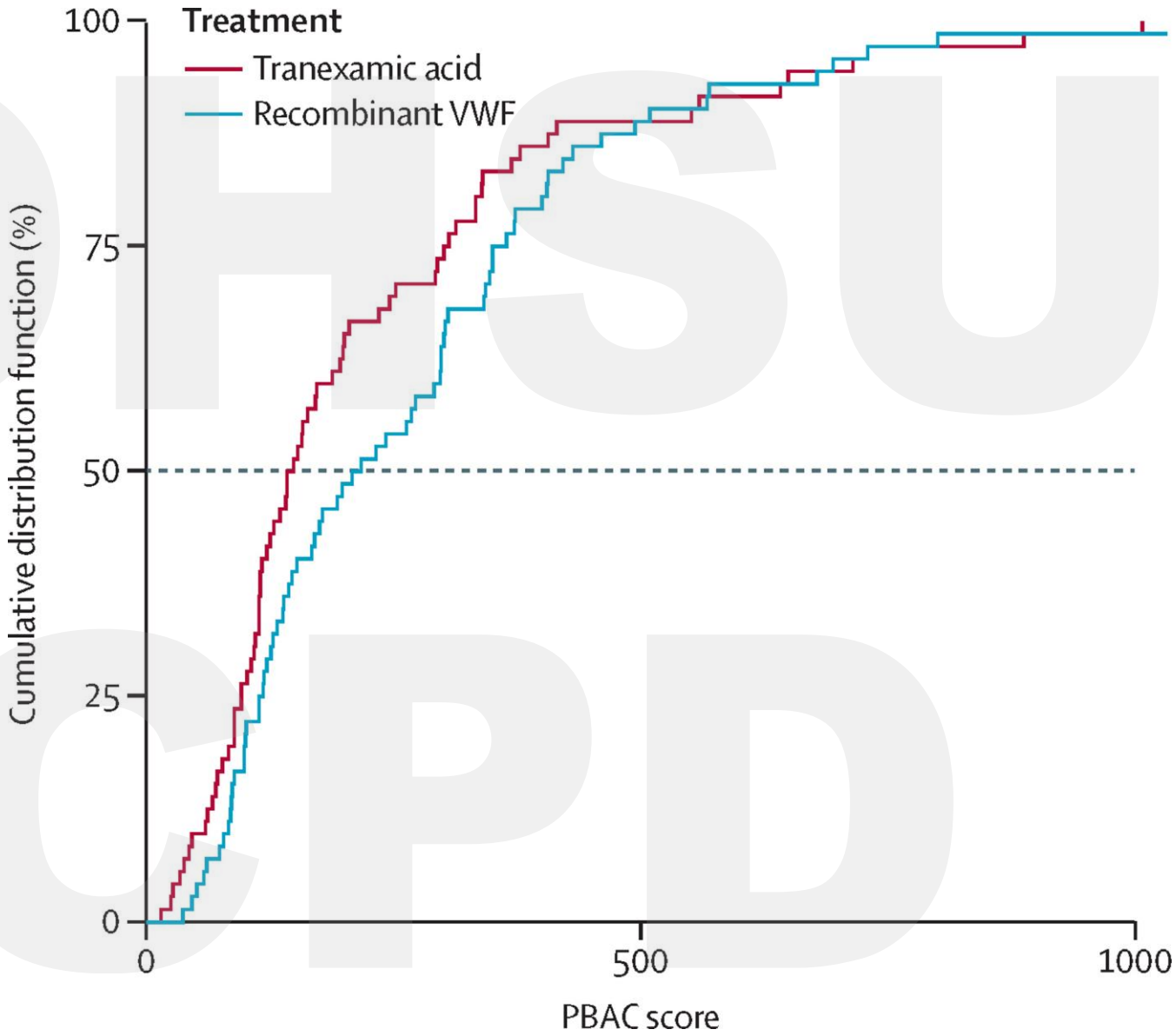
Elstrott et al RPTH 2022

Bleeding Disorder Specific Treatments

Bleeding Disorder Specific Treatments



VWD Min Study



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Questions?

CPD