Common Women’s Hematology Cases

Hematology Update

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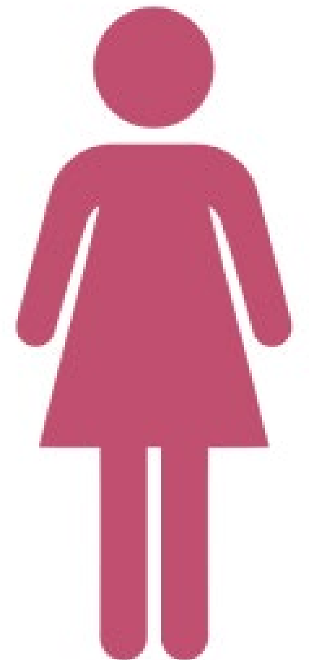
Objectives

- Discuss cases commonly/typically seen in women's hematology clinic

OHSU

Case 1

- A 22 yo woman presents with complaints of fatigue, decreased exercise tolerance, hair loss
  - WBC 5.3 K/mm^3
  - Hemoglobin 12.2 g/dL
  - Platelets 400 K/mm^3



What do you do next?

Pearl #1

Always check a ferritin in menstruating patients!

Iron deficiency without anemia

- ≥ 20% of menstruating people
- Hgb alone may miss >50% of iron deficiency
- Symptoms
  - Fatigue/decreased productivity
  - “Brain fog”
  - Restless legs
  - Hair loss

Case 2

- A 22 yo woman presents to your clinic for anemia
  - Hemoglobin 10.0 g/dL, MCV 72
  - She reports a history of anemia dating back to age 16
  - She feels her periods are normal

What do you do next?

Pearl #2

Take a (good) menstrual history!

Taking a Menstrual History

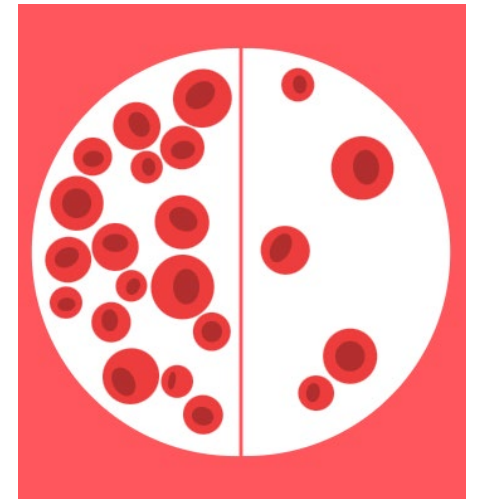
- Duration
- Change of protection (heaviest days)
  - Frequency
  - Overnight changes
- "Flooding" and clots
- Iron deficiency
- Regularity (+/- few days)

Normal or Abnormal?

- Average age of menarche: 12.5-12.7 years
- Average age of menopause: 51
- Average cycle length: 28 (21-35) days
- Average duration of menses: 2-7 days
- Median blood loss: 53mL/cycle

Case 2

- A 22 yo woman presents to your clinic for anemia
  - Hemoglobin 10.0 g/dL, MCV 72
  - She changes her pad/tampon q30 minutes
  - She frequently passes clots >1 inch
  - Her ferritin is 6 mcg/L



Pearl #3

Don’t forget to treat HMB!

Hematologic Management of HMB

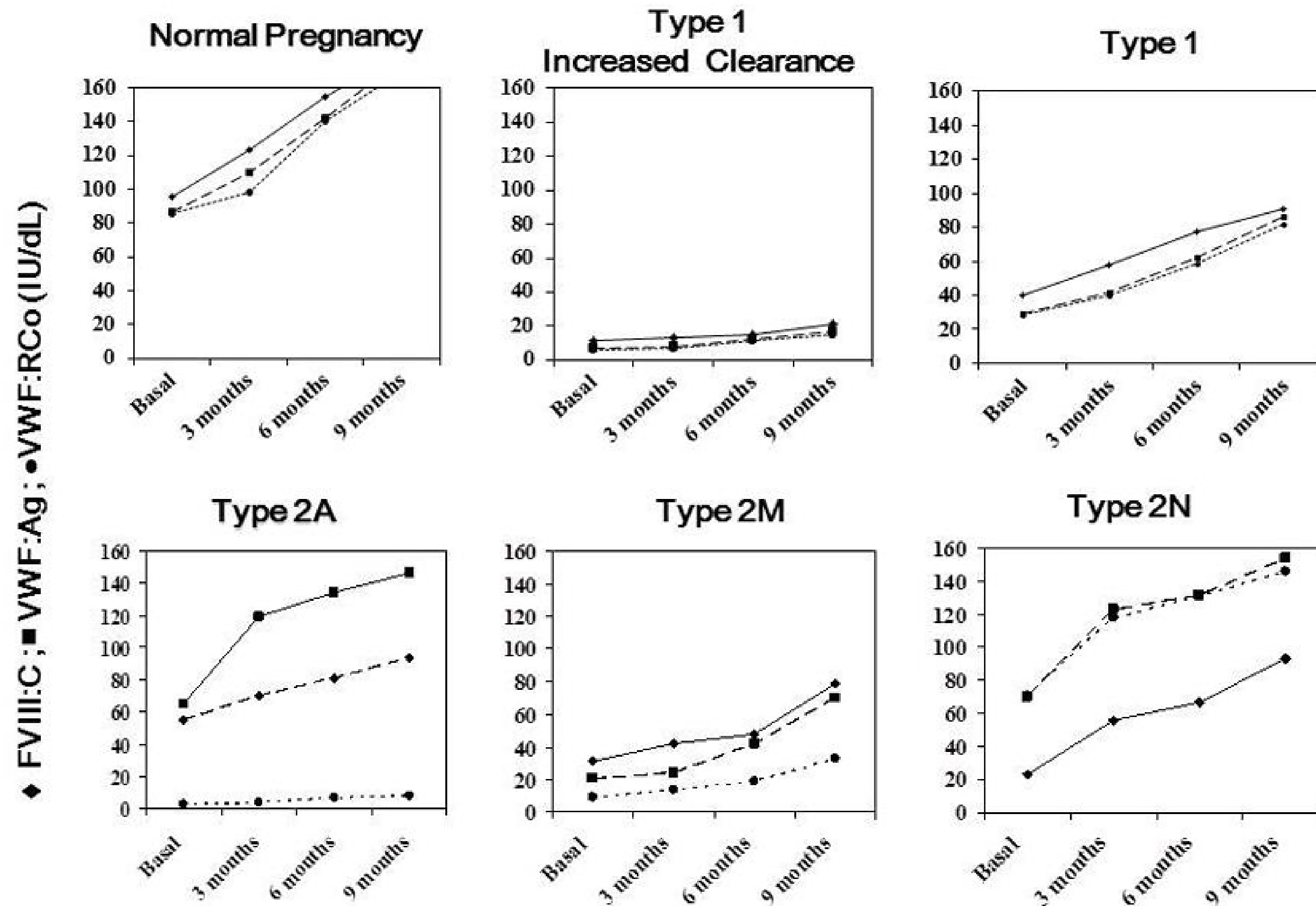
- **Iron supplementation!**
- Hemostatic agents
  - TXA 1300mg po TID while bleeding
- Hormonal therapy
  - Norethindrone acetate 5 mg daily to TID
  - Cyclic combined pill with estradiol valerate and dienogest (Natazia)
  - Any combined estrogen/progestin pill
- Refer to gynecology

Case 2 – 4 years later

- 26yo with history of HMB returns to clinic
  - Currently 26 weeks pregnant
  - Reports a family hx of VWD
  - OB sent a VWD panel which just resulted:
    - VWF: 188%, VW Activity: 176%, FVIII 200%

How do you interpret these results?

Pregnancy & VWD



Castaman Mediterr J Hematol Infect Dis 2013; 5

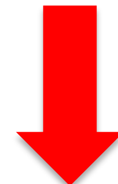
Pearl #4

Think about bleeding disorder workup *early*.

HMB & Bleeding Disorders

- 30% of women will have HMB or AUB
  - ≤ 20% have a bleeding disorder

- ISTH BAT Score can be helpful



HOME ABOUT OUR THINKING SELF-BAT RESOURCES

www.letstalkperiod.ca

Pearl #4 (part 2)

Talk about pregnancy *before* it happens!

Pregnancy & VWD

PPH incidence in known vs. unknown VWD diagnosis.

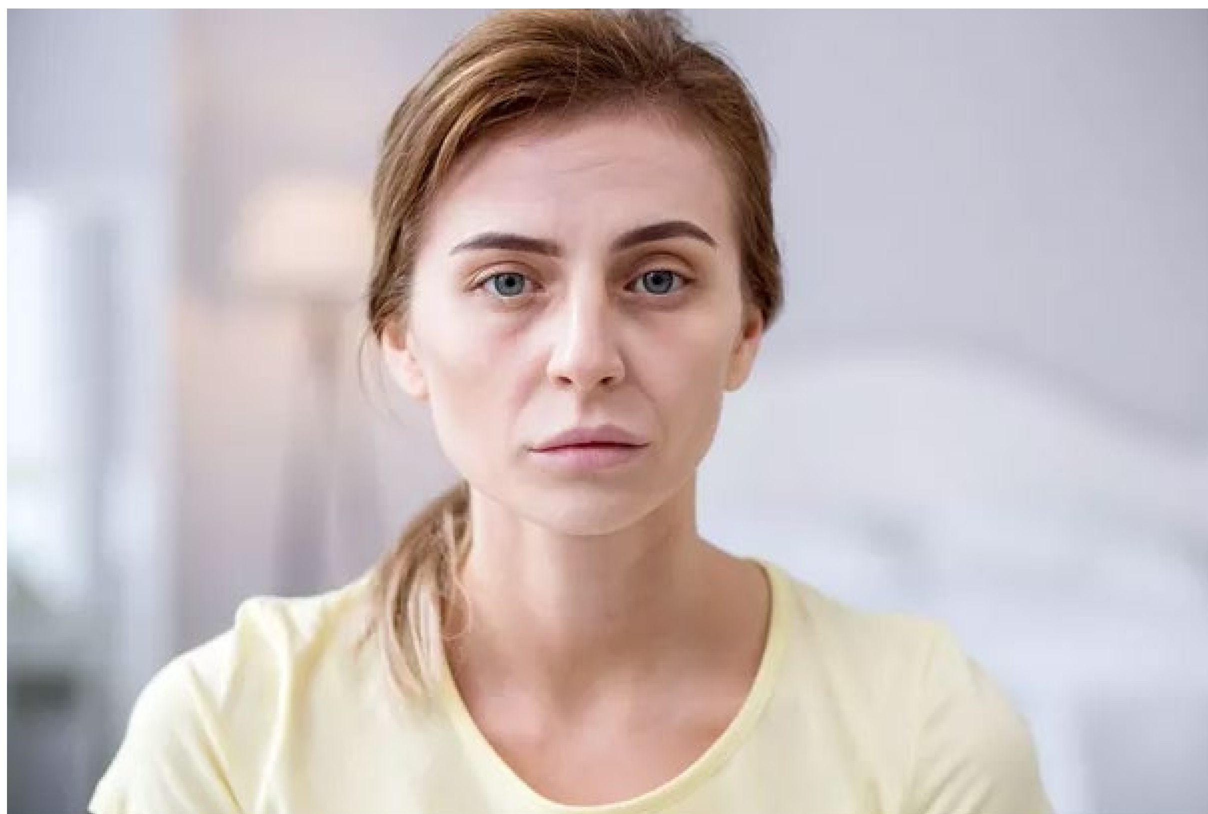
	All deliveries (n = 59)	**Known VWD diagnosis (n = 43)**	**Unknown VWD diagnosis (n = 16)**	**Significance (2-sided)**
Median blood loss, ml (range)	450(200–6000)	450(200–3200)	425(200–6000)	
Primary PPH (>500 ml) %	44.1	37.5	46.5	p = 0.57
Severe primary PPH (>1000 ml) %	20.3	16.3	31.3	p = 0.28
Vaginal hematoma	5.1	2.3	12.5	p = 0.18
Secondary PPH %	11.9	4.7	31.3	**p = 0.013**
Blood transfusion %	5.1	-	18.8	**p = 0.017**

Govorov PLoS One 2016; 11

Case 3

- 26yo woman started CHCs for HMB 2 months ago and now has L femoral vein thrombosis.
  - CHCs are stopped
  - Patient is discharged on rivaroxaban

What will happen later this month?



Pearl #5

You don’t have to stop CHCs in anticoagulated patients.

Hormonal Therapy Management

- Discontinuing CHCs → withdrawal bleeding
- Can be worse than prior periods
  - May lead to withholding anticoagulation
  - Could increase risk of recurrent VTE
    - 5-fold increased risk of recurrent VTE with HMB + rivaroxaban

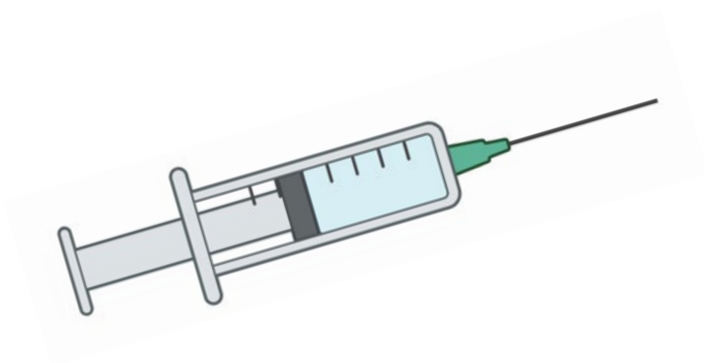
CHCs & Anticoagulation

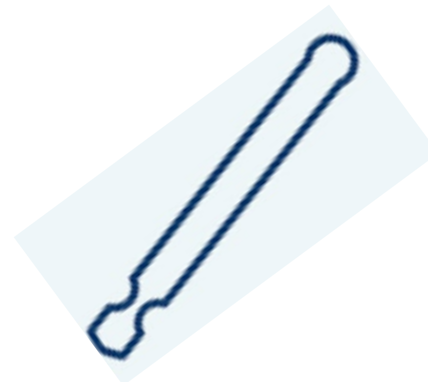
Table 2. Recurrent VTE during the at-risk period in women with and without concomitant hormonal therapy

	No hormone use		All hormonal therapies		Estrogen-containing therapy		Progestin-only therapy	
Characteristic	Events/ patient-years	%/year (95% CI)	Events/ patient-years	%/year (95% CI)	Events/ patient-years	%/year (95% CI)	Events/ patient-years	%/year (95% CI)
All patients	38/811.0	4.7 (3.3-6.4)	7/187.5	3.7 (1.5-7.7)	4/109.5	3.7 (1.0-9.4)	3/78.0	3.8 (0.8-11.2)
Age								
<40 years	19/287.7	6.6 (4.0-10.3)	2/107.4	1.9 (0.2-6.7)	1/57.1	1.8 (0.0-9.8)	1/50.3	2.0 (0.1-11.1)
≥40 years	19/523.4	3.6 (2.2-5.7)	5/80.0	6.3 (2.0-14.6)	3/52.3	5.7 (1.2-16.8)	2/27.7	7.2 (0.9-26.1)
Time period after randomization								
Days 1-30	27/121.0	22.3 (14.7-32.5)	5/28.3	17.7 (5.7-41.2)	4/21.1	19.0 (5.2-48.5)	1/7.2	13.9 (0.4-77.4)
Days 31-90	7/229.9	3.1 (1.2-6.3)	1/56.5	1.8 (0.0-9.9)	0/34.6	0.0 (0.0-10.7)	1/21.9	4.6 (0.1-25.4)
Days 91-180	3/300.1	1.0 (0.2-2.9)	1/73.8	1.4 (0.0-7.6)	0/39.1	0.0 (0.0-9.4)	1/34.7	2.9 (0.1-16.1)
Days 181-end	1/160.0	0.6 (0.0-3.5)	0/28.9	0.0 (0.0-12.8)	0/14.7	0.0 (0.0-25.1)	0/14.2	0.0 (0.0-26.0)

Hormonal Therapy Management

- Best to continue CHCs while starting anticoagulation in patients with HMB
- Can transition to an alternative before discontinuing AC

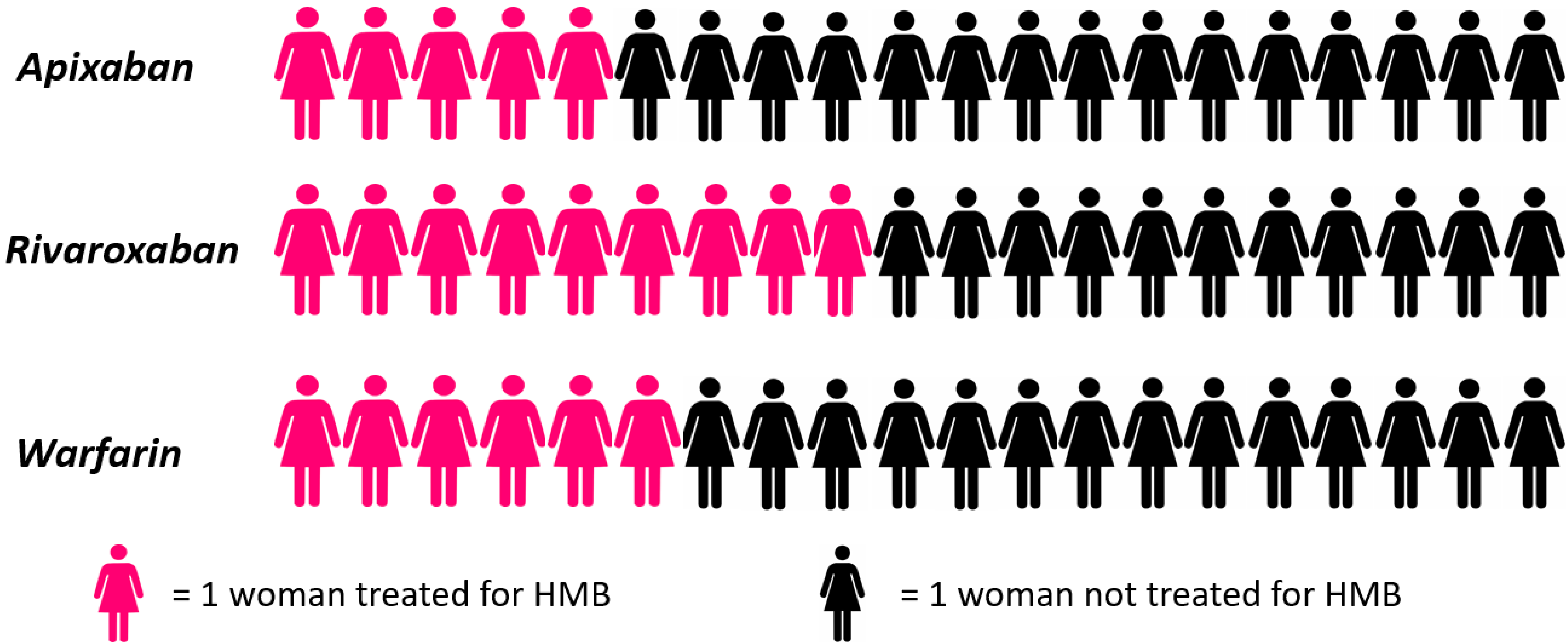




Pearl #5 (Part 2)

Choose (and manage) anticoagulation wisely in menstruating patients.

Choice of Anticoagulant



Anticoagulation Management

- When starting
  - Don’t forget to repeat CBC + ferritin
  - Education about
    - normal periods
    - risk of HMB on anticoagulation
    - importance of continuous use
    - importance of contraception

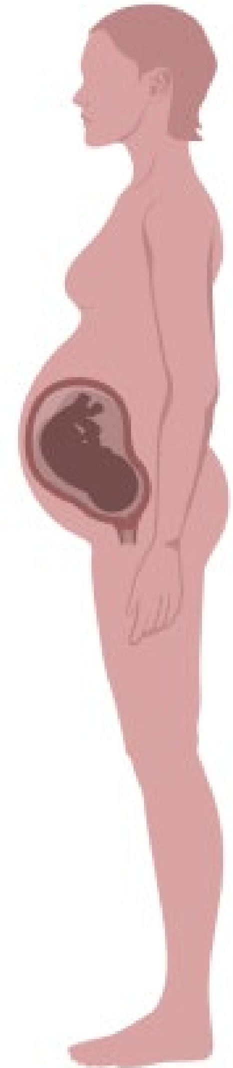
Anticoagulation Management

- Follow-up visits
  - changes in periods
  - symptoms of iron deficiency
  - CBC and ferritin check
- Discontinuation visit
  - revisit importance of contraception
  - future pregnancy planning

Questions?

Iron in Pregnancy

- Term pregnancy: 500-800mg maternal iron
- 20% have reserves >500mg
- Ferritin >70 μg/L required



Taking a OB History

- GxPx
  - Term, preterm, abortion, living
- PPH
  - Primary or secondary
- Antepartum bleeding?
- Recurrent loss
- Other complications
  - Preeclampsia, IUGR
  - VTE