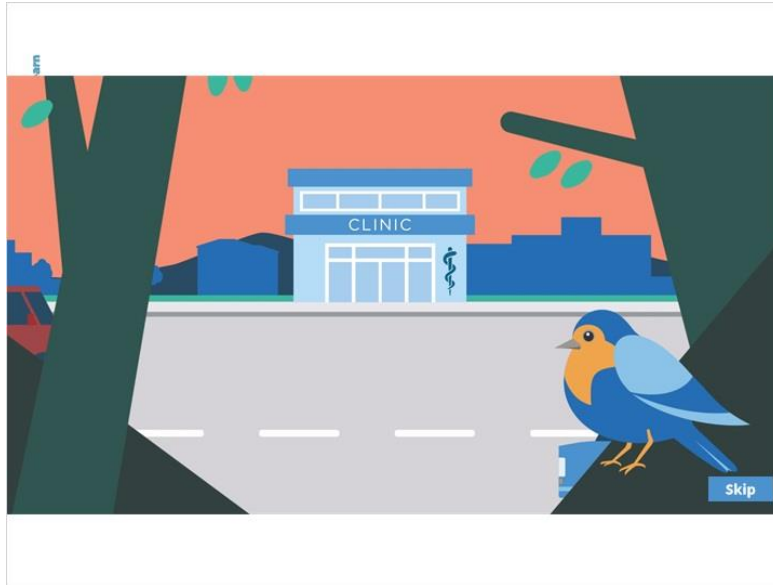


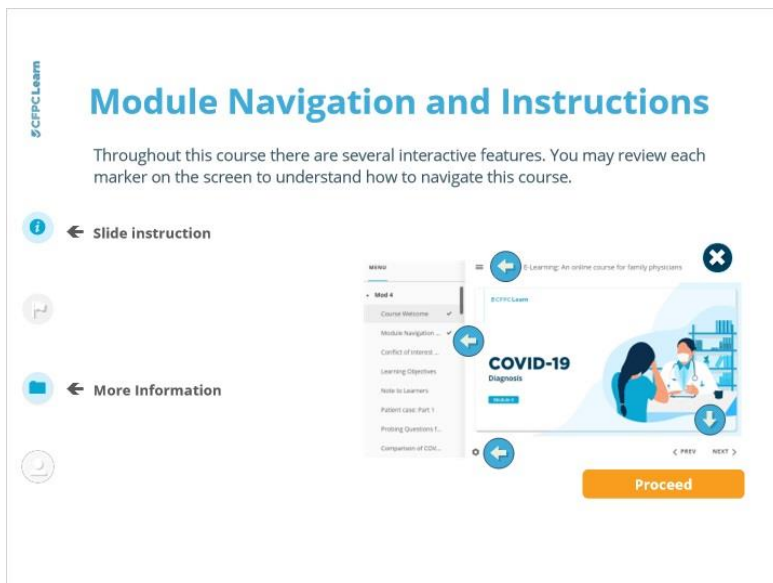
# Case 28 Farrah Lo Part II

## 1. Conflicts

### 1.1 Intro Video



### 1.2 Module Navigation and Instructions



## 1.3 Learning Objectives

CFPC Learn

### Learning Objectives

**At the end of this module participants should be able to:**

1. Identify key factors/findings in family medicine to help establish common clinical diagnoses.
2. Evaluate best evidence/guidance and practice tools to determine preferred treatment options for patients.
3. Synthesize patient preference, evidence and experience to formulate comprehensive plans for patient cases.

Approximately 15 minutes to complete each patient case.

Proceed

## 2. Farrah Lo

### 2.1 Meet Farrah Lo

CFPC Learn


### Farrah Lo, 27

Farrah returns to the clinic after starting ferrous gluconate 300 BID two weeks ago for iron deficiency anemia.

Today, she is in to talk about her heavy menstrual cycle. She has had heavy menses since menarche.

Farrah Bloodwork

Moving Forward



## Farrah (Slide Layer)

SCFPCLearn

### Farrah Lo, 27

I must say, I started to feel a bit more energy after taking the iron! But I have my period now and I am going through a super tampon every few hours! I can't take this anymore, I had to leave work the last two days!

Farrah
Bloodwork

Moving Forward



## Chart (Slide Layer)


SCFPCLearn

### Farrah Lo, 27

WBC	4.58	3.5-10.5x10 <sup>9</sup> /L
RBC	3.30	3.5-5.00 x 10 <sup>12</sup> /L
HgB	103	115-155 g/L
Hct	0.344	0.38-0.50
MCV	77.7	80-100
MCH	22.1	24-34
RDW	13.5	11.5-15.5%
Platelets	226	130-380 x 10 <sup>3</sup> /L
Ferritin	4.1	11-307 ug/L
TSH	0.75	0.4- 4.50 mIU/L
Beta-HCG urine	Negative	N/A

Farrah
Bloodwork

Moving Forward



## 2.2 Farrah Lo

#CFPCLearn


### Farrah Lo, 27

Based on her previous visit, you note that Farrah has no remarkable past medical history.

She has no family history of celiac disease, colon cancer, other GI disorders. Her TSH was normal.

**Conversation** **Vitals**

Moving Forward



### vitals (Slide Layer)


#CFPCLearn

### Farrah Lo, 27

On exam, Farrah's blood pressure is 104/62 and her heart rate is 72 bpm.

**Conversation** **Vitals**

Moving Forward



## Convo (Slide Layer)

Farrah Lo, 27

Have you ever had unexpected bleeding? Does anyone in your family have a bleeding disorder?

No, I haven't noticed anything myself and I don't know of anything in my family.

Conversation Vitals

Moving Forward

## 2.3 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

What testing would be indicated?

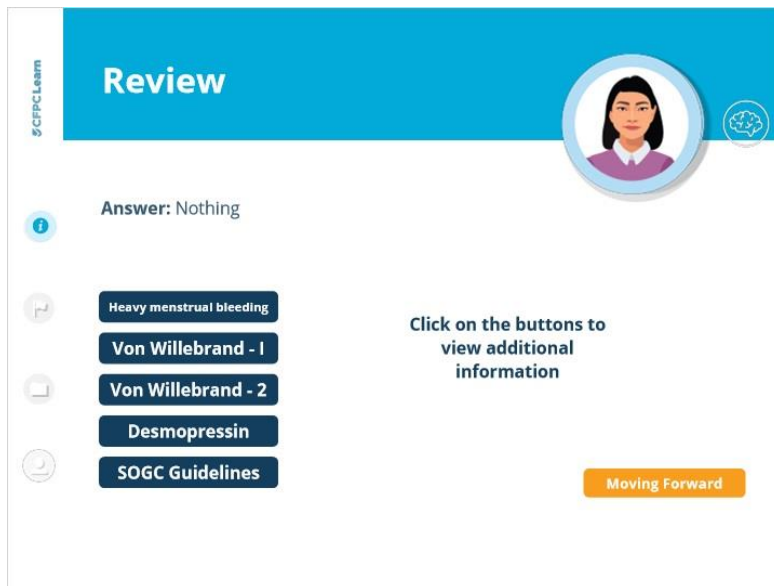
Von Willebrand factor and antigen

Ultrasound

Nothing

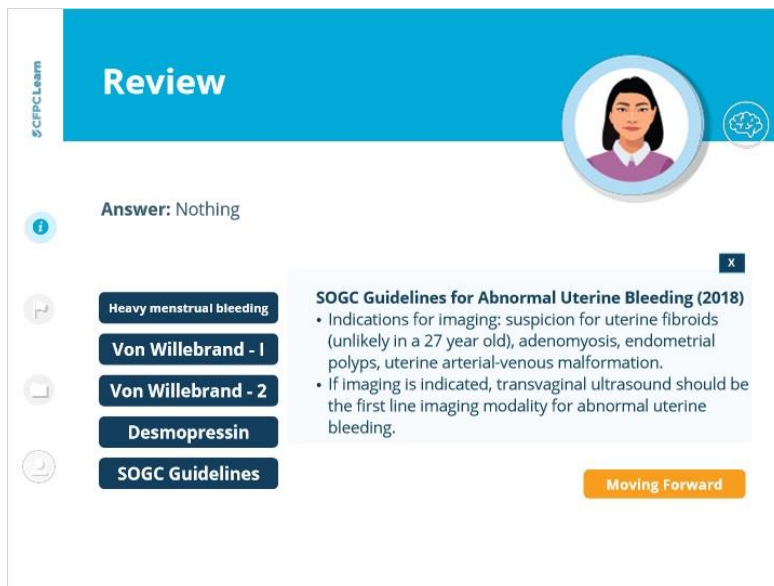
Submit

## 2.4 Review



The slide features a blue header with the word "Review" and a user profile icon. On the left, there is a vertical navigation menu with icons for information, back, forward, and home. The main content area includes the text "Answer: Nothing" and a list of five buttons: "Heavy menstrual bleeding", "Von Willebrand - 1", "Von Willebrand - 2", "Desmopressin", and "SOGC Guidelines". A central instruction reads "Click on the buttons to view additional information". At the bottom right, there is an orange "Moving Forward" button.

### SOGC Guidelines (Slide Layer)



This slide is identical to the one above but includes a slide layer for the "SOGC Guidelines" button. The slide layer is titled "SOGC Guidelines for Abnormal Uterine Bleeding (2018)" and contains the following text:



- Indications for imaging: suspicion for uterine fibroids (unlikely in a 27 year old), adenomyosis, endometrial polyps, uterine arterial-venous malformation.
- If imaging is indicated, transvaginal ultrasound should be the first line imaging modality for abnormal uterine bleeding.

The slide layer also includes a close button (X) in the top right corner.

## Desmopressin (Slide Layer)

SCFPCLearn

### Review



Answer: Nothing shortened a bit

Heavy menstrual bleeding

Von Willebrand - 1

Von Willebrand - 2

Desmopressin

SOGC Guidelines



- Very limited trials compare desmopressin (von Willebrand specific treatment) to other treatments for menorrhagia.
- A single study (n=116) showed that among patients with bleeding disorders, tranexamic acid had better reduction in menstrual blood loss compared to desmopressin.
- Trials that examine treatment for menorrhagia do not routinely check for von Willebrand Disease but given its prevalence of 10-18% in women with menorrhagia, these women are likely included in the trials of management.

Moving Forward

## Von Willebrand Disease 2 (Slide Layer)

SCFPCLearn

### Review



Answer: Nothing

Heavy menstrual bleeding

Von Willebrand - 1

Von Willebrand - 2

Desmopressin

SOGC Guidelines



However, Von Willebrand Disease is difficult to diagnose: relies on a combination of clinical features and laboratory assessment of von Willebrand factor antigen (VWF:Ag), von Willebrand factor functional activity (VWF:Ac) or FVIII assay. These serum markers fluctuate within the same woman at different phases of menstrual cycle. Von Willebrand disease testing is not indicated in most women with heavy menstrual bleeding.

Moving Forward

## Von Willebrand Disease (Slide Layer)

SCFPCLearn

### Review



Answer: Nothing

Heavy menstrual bleeding

Von Willebrand - 1

Von Willebrand - 2

Desmopressin

SOGC Guidelines

**Von Willebrand Disease** is a possibility given Farrah's history of heavy menses since menarche.



- Prevalence in women with menorrhagia: 10-18%
- Usually associated with other unusual bruising/bleeding.

Moving Forward

## Heavy Menstrual Bleeding (Slide Layer)

SCFPCLearn

### Review



Answer: Nothing

Heavy menstrual bleeding

Von Willebrand - 1

Von Willebrand - 2

Desmopressin

SOGC Guidelines

Heavy menstrual bleeding has been defined as >80ml/cycle. However, blood loss volume does not usually correlate with patient experience or poor iron status except at >120ml/cycle blood loss.

Moving Forward



## 2.5 Farrah Lo

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### Farrah Lo, 27

What you are going through sounds really bad. I think we have to look at helping you out right now with this heavy period.

YES PLEASE!!

Moving Forward

## 2.6 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

#CFPCLearn

Select the most appropriate options to treat Farrah. Choose all that apply.

A. Tranexamic acid 1g PO tid for 5 days

B. Monophasic oral contraceptive q6h til bleeding stops then taper

C. Medroxyprogesterone 10 mg q4h til bleeding stops then taper

NSAIDs (eg ibuprofen, naproxen, mefenamic acid)



IV conjugated estrogen 25 mg q 4-6 h for 24 hours

Submit

## 2.7 Review

CFPCLearn

# Review



**Answer:** The correct answer is that you could pick option A, B, C or D.

Click on the buttons to view additional information



- TXA - Efficacy
- TXA - Side effects
- Oral Contraceptives
- NSAID
- IV Estrogen

Moving Forward

## IV Estrogen (Slide Layer)

CFPCLearn

# Review



**Answer:** The correct answer is that you could pick option A, B, C or D.

Given that Farrha's vital signs are stable, she does not need to be sent to the emergency room for intravenous estrogen.

The dosing for IV estrogen is 25 mg q 4-6 hours for 24 hours.



- TXA - Efficacy
- TXA - Side effects
- Oral Contraceptives
- NSAID
- IV Estrogen

Moving Forward

## NSAID (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is that you could pick option A, B, C or D.

**TXA - Efficacy**

**TXA - Side effects**

**Oral Contraceptives**

**NSAID**

**IV Estrogen**

In studies, NSAIDs reduce mean menstrual blood loss by ~30%, and ~20-50% fewer sanitary products were used compared to placebo.



- Ibuprofen 400mg TID, naproxen 500 mg bid, and mefenamic acid 500 mg tid have been studied.
- Typically used at onset and during menses.

Moving Forward

## Oral Contraceptives (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is that you could pick option A, B, C or D.

**TXA - Efficacy**

**TXA - Side effects**

**Oral Contraceptives**

**NSAID**

**IV Estrogen**



High dose oral contraceptives of various dosing have been used but not systematically studied. Suggested dosing protocols are based on expert opinion.

- Side effects of high dose contraceptives are primarily nausea. There is a theoretical risk for thrombosis, so monitor for unilateral limb swelling.

## TXA (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is that you could pick option A, B, C or D.

- TXA - Efficacy
- TXA - Side effects
- Oral Contraceptives
- NSAID
- IV Estrogen

Side effects of TXA



- No difference compared to placebo
- In large TXA trials for gastrointestinal bleeding and trauma, there has been no increase in thromboembolic or other adverse events. Avoid TXA in patients with history of thromboembolic event.

Moving Forward

## Tranexamic Acid (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is that you could pick option A, B, C or D.

- TXA - Efficacy
- TXA - Side effects
- Oral Contraceptives
- NSAID
- IV Estrogen

Tranexamic acid (TXA) (usual dose 3-4g per day)

- Reduces total blood loss compared to placebo (moderate quality evidence)
- May be superior to oral progesterone or anti-inflammatories (low quality evidence)

Moving Forward

## 2.8 Conversation

#CFPCLearn

### Farrah Lo, 27

There are a few options to treat the bleeding now. Were you looking to conceive any time soon?

No, I am not planning to get pregnant for a number of years. Let's talk about those options. But I also want to know - how do we prevent this from happening again and again?


Moving Forward



## 2.9 Place the options in order of effectiveness for longer term management of menorrhagia:

(Sequence Drop-down, 10 points, 1 attempt permitted)

### Place the options in order of effectiveness for longer term management of menorrhagia:



Levonorgestrel containing IUD

Tranexamic acid 1g TID with menses

Long cycle progesterone (day 5-26)

NSAIDs with menses

Combined oral contraceptives

## 2.10 Review

CFPCLearn

# Review

Click on the buttons to view additional information

Therapeutic Options

IUDs

Farrah

## Levonorgestrel containing IUD (Slide Layer)

CFPCLearn

# Review

Therapeutic Options

IUDs

Farrah

**Levonorgestrel containing IUDs:**



Compared to other treatments (e.g., oral contraceptives):

- Blood loss with an IUD is reduced ~80% versus 25%;
- More women with an IUD are satisfied (75% versus 60%);
- More remain on treatment at 2 years (64% versus 38%)

## farrah (Slide Layer)

SCFPCLearn

### Review



**Answer:** The most effective option for longer term management of heavy menstrual bleeding is the IUD.

**Therapeutic Options**



- IUDs
- Farrah

I think I am leaning towards the IUD once this cycle settles down.

## Options (Slide Layer)

SCFPCLearn

### Review



**Therapeutic Options**

- IUDs
- Farrah

Treatment	Mean blood loss decreased (mL)
Levonorgestrel IUD	-105.7
Antifibrinolytics	-80.3
Long cycle progesterone	-77.0
NSAIDs with menses	-41.0
Combined oral contraceptives	No effect

Perception of improvement - no certain superiority among options.

## 2.11 Create a Plan

The screenshot shows a learning module titled "Let's Make a Plan" with the CFPC Learn logo on the left. A navigation sidebar on the left contains icons for home, back, forward, and search. The main content area features a patient profile icon of a woman and a clipboard icon. Below the title, a text prompt asks the user to write a plan for a patient named Farrah, listing potential components like lifestyle interventions, prescriptions, lab tests, and referrals. A large light blue text box is provided for the user's input. To the right of the text box is an orange button labeled "See how your plan compares".

## 2.12 Plan Answers

The screenshot shows a learning module titled "Treatment Plan" with the CFPC Learn logo on the left. A navigation sidebar on the left contains icons for home, back, forward, and search. The main content area features a patient profile icon of a woman and a balance scale icon. Below the title, a text prompt asks the user to compare their plan to a proposed one. Three blue buttons labeled "Treatment", "IUD", and "Next Appointment" are displayed. To the right of these buttons is a light blue box containing the text "Click on the buttons to see suggested answers". At the bottom left, a green button labeled "What's in a name?" is visible.



## Name (Slide Layer)

SCFPCLearn

### Treatment Plan

This is the proposed plan for the patient. How does your plan compare?

Treatment  
IUD  
Next Appointment

What's in a name?

Meaning behind name: Farrah

Farrah Lo experiencing "low" hemoglobin and her first name is the closest we could get to "ferritin" for a female name.

The screenshot shows a slide layer titled "Treatment Plan" with a patient profile picture. A tooltip is open, displaying the text "Meaning behind name: Farrah" and a paragraph explaining that the patient's name, Farrah Lo, is chosen because she has low hemoglobin and "Farrah" is a close match to "ferritin" for a female name. The slide layer includes a navigation menu on the left with icons for information, back, forward, and search, and a "What's in a name?" button at the bottom.

## Medications (Slide Layer)

SCFPCLearn

### Treatment Plan

This is the proposed plan for the patient. How does your plan compare?

Treatment  
IUD  
Next Appointment

What's in a name?

Continue ferrous gluconate.

Prescribe: tranexamic acid 1g TID now and for five days.

The screenshot shows the same "Treatment Plan" slide layer as above. The tooltip is open, displaying the text "Continue ferrous gluconate." and a prescription instruction: "Prescribe: tranexamic acid 1g TID now and for five days." The layout and navigation elements are identical to the previous slide layer.

## IUD (Slide Layer)

**SCFPCLearn**

### Treatment Plan

This is the proposed plan for the patient. How does your plan compare?

**Treatment**

**IUD**

**Next Appointment**

*What's in a name?*

Give her a prescription for a levonorgestrel containing IUD and plan to follow-up in 2 weeks for insertion.

The screenshot shows a digital interface for a 'Treatment Plan' slide layer. On the left, there is a vertical sidebar with the logo 'SCFPCLearn' and five circular navigation icons. The main content area has a title 'Treatment Plan' and a subtitle 'This is the proposed plan for the patient. How does your plan compare?'. Below the subtitle are three blue buttons: 'Treatment', 'IUD', and 'Next Appointment'. At the bottom left of the main area is a green button labeled 'What's in a name?'. On the right side, there is a light blue box with a close button 'x' in the top right corner. This box contains a blue circular icon with a plus sign and the text: 'Give her a prescription for a levonorgestrel containing IUD and plan to follow-up in 2 weeks for insertion.' In the top right corner of the slide, there is a circular patient avatar and a blue circular icon with a scale of justice.

## Next Appointment (Slide Layer)

**SCFPCLearn**

### Treatment Plan

This is the proposed plan for the patient. How does your plan compare?

**Treatment**

**IUD**

**Next Appointment**


*What's in a name?*

Ask Farrah to call the office if bleeding worsens or does not improve.



She is advised to go to ER if she begins to feel light-headed.

The screenshot shows a digital interface for a 'Next Appointment' slide layer. The layout is identical to the previous slide, with the same sidebar, title, subtitle, buttons, and patient avatar. The light blue box on the right now contains a blue circular icon with a clock and the text: 'Ask Farrah to call the office if bleeding worsens or does not improve.' Below this, it says: 'She is advised to go to ER if she begins to feel light-headed.'

## 2.13 References



# References



Thanks for visiting the clinic!

References are available [here](#).

This activity is eligible for up to 0.25 Mainpro+ credits.

