

Online Appendix 1. Simulated Patient Scenario

You are a 30 Y.O lady visiting community pharmacy, requesting to speak to the pharmacist to ask for hormonal contraceptive for the first time. Upon questioning, you are treated with zolmitriptan (Zomig) and pain relievers such as acetaminophen (paracetamol) and ibuprofen (Advil) for your once a month migraine with aura episode in which you experience temporary visual disturbances, intense head pain, nausea, and sensitivity to light and sounds.

In Abu Dhabi you are presenting to the pharmacist with the same medical and personal histories along with a prescription of progesterone-only pill (Cerazette)

- 1) Did the pharmacist ask about your age?
- 2) Did the pharmacist ask whether you are smoking?
- 3) Did the pharmacist ask about possible pregnancy?
- 4) Did the pharmacist ask about regular menstruation or abnormal vaginal bleeding?
- 5) Did the pharmacist ask about family history of thromboembolic disease or breast cancer?
- 6) Did the pharmacist ask about any medications or supplements you are using currently?
- 7) Did the pharmacist ask about medical history or any chronic illnesses?
- 8) Did the pharmacist make the correct prescribing decision? To dispense progestin only (mini pill contraceptive)?
- 9) Did the pharmacist provide counseling on how to use contraceptives, and to use back up method at the first 2 days?

How do you rate the counsel?

- Complete
- Incomplete
- Poor, no Information

- 10) Did the pharmacist provide counseling on adherence to contraceptives and the action in case of missing doses?

How do you rate the counsel?

- Complete
- Incomplete
- Poor, no Information

- 11) Did the pharmacist provide any information about side effects?

How do you rate the counsel?

- Complete
- Incomplete
- Poor, no Information

12) How long was the encounter?

- If the pharmacist did not ask about your medical history, ask if your migraine would interact with these pills!
- If the pharmacist did not offer the progestin only pills (POP)/ mini pill and offered combined hormonal contraceptive (CHC), ask about the mini pill that has one hormone, your friend suggested as a better choice for someone with migraine!
- If the pharmacist did not cover any counseling on how to use the pill, ask if there is a right way to use them!
- If the pharmacist did not cover any counseling on missing dose or late dose handling, ask what to do if you miss a dose or two!
- If the pharmacist did not cover any counseling on medications side effects, ask if these pills have any side effects, and what to do if a side effect is experienced!

Online Appendix 2. Coding

Rating the counseling provided by the community pharmacist on progesterone only pills- desogestrel (Cerazette®)

How to use:

- 1- How: You need to take 1 pill every day at the same time.
- 2- When: If you start it on day 1 to 5 of your menstrual cycle (the first 5 days of your period), it'll work straight away and you'll be protected against pregnancy. You won't need additional contraception. If you start the progestogen-only pill on any other day of your cycle, you won't be protected from pregnancy straight away and will need additional contraception such as condoms for the next 2 days (48 hours) or don't have sexual intercourse, until you've taken the pill for 2 days. (Reason: It takes 2 days for the progestogen-only pill to thicken cervical mucus so sperm can't get through or survive.)
- 3- Food with or without, the presence or absence of food in the stomach is not critical in relation to absorption of the pill. Most women tend to take it first thing in the morning before breakfast but this is more to do with establishing a routine in taking the pill.²²

*Coding

Complete	Pharmacist must mention 1(how) , 2 (when), 3(food)
Incomplete	Pharmacist misses one or two of the above information
Poor	Pharmacist misses all the above information or mentions wrong information

Adherence and what to do in case of missing a dose or more:

Because progestin-only pills are short acting, timely ingestion is important.

- 1- Late but within 12 hours of schedule: When taking desogestrel and you are less than 12 hours late, take the late pill as soon as you remember, and take the remaining pills as normal, even if that means taking 2 pills on the same day, no need for extra protection.
- 2- Late for more than 12 hours: When taking desogestrel and you are more than 12 hours late, this is considered a missed dose and **you won't be protected against pregnancy**. you should take a pill as soon as you remember – only take 1, even if you've missed more than 1 pill, take the next pill at the usual time – this may mean taking 2 pills on the same day (1 when you remember and 1 at the usual time); this isn't harmful carry on taking your remaining pills each day at the usual time, use extra contraception such as condoms for the next 2 days (48 hours) or don't have sexual intercourse.

*Coding:

Complete	Pharmacists must mention 1 and 2
Incomplete	Pharmacist misses one of the above information
Poor	Pharmacist misses all the above information or mentions wrong information

Common side effects:



Must give information by the pharmacist

1. Irregular vaginal bleeding (spotting): very common; in up to 70% of users.¹
2. These side effects are most likely to occur during the first few months, but they generally improve over time and should stop within a few months.

Additional side effects: may affect up to 1 in 10 women.²

- 3-Breast tenderness and breast enlargement
- 4-Mood changes
- 5- Nausea or vomiting
- 6-Acne

*Coding:

Complete	Pharmacist mentions the “must give information” plus any of the other additional side effects :
Incomplete	Pharmacist mentions only one of the must give information
Poor	Pharmacist misses both of the must give information or mentions wrong information.

1. Kovacs G. Progestogen-only pills and bleeding disturbances. Hum Reprod Oxf Engl. 1996;11 Suppl 2: 20–23.
2. Desogestrel 75 microgram Film-coated Tablets - Patient Information Leaflet (PIL) - (eMC) [Internet]. [cited 26 Dec 2018]. Available: <https://www.medicines.org.uk/emc/product/6830/pil>

Online Appendix 3. Data collection form

Form #.....

➤ **General characteristics of the Community Pharmacist**

1- Location

- Abu Dhabi
- Dubai
- Sharjah
- Ajman
- Umm Al Quwain
- Ras Al Kheima
- Fujairah

2- Pharmacist Gender

- Male
- Female

3- Number of staff during the visit

- 1
- 2
- 3
- More than 3

4- Type of pharmacy

- Chain
- Independent

➤ **Assessing: patient eligibility for safe use of hormonal contraceptive by Obtaining patient's medical history, pregnancy status, medication use crucial questions to exclude contraindications**

1) Did the pharmacist ask about your age?

- Yes
- No

2) Did the pharmacist ask whether you are smoking?

- Yes
- No

3) Did the pharmacist ask about possible pregnancy?

- Yes
- No

- 4) Did the pharmacist ask about regular menstruation or abnormal vaginal bleeding?
 - Yes
 - No

- 5) Did the pharmacist ask about family history of thromboembolic disease or breast cancer?
 - Yes
 - No

- 6) Did the pharmacist ask about any medications or supplements you are using currently?
 - Yes
 - No

- 7) Did the pharmacist ask about medical history or any chronic illnesses?
 - Yes
 - No
 - If the pharmacist did not ask about your medical history, ask if your migraine would interact with these pills!
 - **Managing: making prescribing decision, select appropriate hormonal contraceptive to patient condition**

- 8) Did the pharmacist make the correct prescribing decision for patient condition? To dispense progestin only (desogestrel -mini pill contraceptive)?
 - Yes
 - No
 - If the pharmacist did not offer the mini pills and offered CHC, ask about mini pills (Cerazette®) that has one hormone, your friend has suggested as a better choice for migraine!
 - **Counseling and education: provision of essential information on contraceptive use to insure safe and successful use**

- 9) Did the pharmacist provide counseling on how to use contraceptives and to use back up method at the first 2 days?
 - Was the counseling given by the pharmacist spontaneous?
 - Yes
 - No
 - If the pharmacist did not cover any counseling on how to use the pills, ask if there is a right way to use them, and if the pills are effective from the first use!
 - How do you rate the counseling?
 - Complete =3
 - incomplete =2
 - Poor, no Information =1
 - Comment



10) Did the pharmacist provide counseling on adherence to contraceptives and the action in case of missing doses?

➤ Was the counseling given by the pharmacist spontaneous?

Yes

No

▪ If the pharmacist did not cover any counseling on adherence, ask what to do if you miss a dose or two!

➤ How do you rate the counseling?

▪ Complete =3

▪ Incomplete =2

▪ Poor, no Information =1

➤ Comment

11) Did the pharmacist provide any information about side effects?

➤ Was the counseling given by the pharmacist spontaneous?

Yes

No

▪ If the pharmacist did not cover any counseling on medications, ask if these pills have any side effects, and what to do if a side effect is experienced!

➤ How do you rate the counseling?

▪ Complete =3

▪ Incomplete =2

▪ Poor, no Information =1

➤ Comment

12) Duration of the encounter?

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