Instruction for the patient

Your situation

- You are 16 years old and have a boyfriend
- You have already had sexual intercourse with and without a condom
- You suffer from dysmenorrhoea and therefore do not like having monthly bleeding

Instruction for the patient

Your questions for the doctor

1. Can you prescribe me the pill?
2. If not, what other options do I have?
3. Do you have any other advice for me?

Instruction for the doctor to question 1:

Can you prescribe me the pill?

- Collect further information on the woman's history and private situation
  Information for the doctor:
  - *She is a pupil*
  - *Her boyfriend's age is 18 years*
  - *They have been a couple for 4 weeks (maybe longer, but discuss the reason why she initiated sex so early)*
  - *Her parents know about the situation and would provide financial support for contraception*
  - *She believes she can manage daily pill use*
  - *She does not know about STI protection*
  - *She reports that her mother had DVT at age 49*
  - *Medical conditions: none*
  - *Medication: none, BMI 29 kg/m^2*
- As the family history for a first-degree relative is positive, you inform her that CHCs (pill, ring, patch) are associated with an increased VTE risk (15-fold)

Instruction for the doctor to question 2:

If not, what other options do I have?

- Other options are POC and IUDs, both of which are very effective
- Explain that all POC methods may be associated with irregular bleeding, but they generally have a positive impact on dysmenorrhoea
- Explain how the bleeding pattern may be, and that these changes are harmless and do not affect efficacy
- Explain the differences between POC methods
  - POP is efficient and safe if you do not forget to use it daily
  - Implant is for 3 years of use and fertility returns rapidly after removal
  - DMPA has a negative impact on development of peak bone mass in adolescence and fertility return is delayed after stopping
- The LNG-IUS diminishes bleeding and dysmenorrhoea, but must be inserted
- The copper IUD cannot be recommended as dysmenorrhoea might worsen

Instruction for the doctor to question 3:

Do you have any other advice for me?

- *Information for the doctor: the girl wants to start with a POP but if the bleeding pattern is unsatisfactory she will consider an LNG-IUS*
- Advise her to return for evaluation in a few months
- Instruct her to seek advice if the bleeding pattern is unsatisfactory but not stop the method
- Discuss STI and emergency contraception
- Inform her that she should continue to use condoms for STI protection
- Inform her about STI screening before IUD insertion
- Inform her about emergency contraception and where to get it
- Discuss the possibility of thrombophilia testing

General history

Further issues important to address before balancing risks and benefits

General history	1. Medical conditions 2. Surgery 3. Medication (include phytotherapeutics) (consider potential interactions) 4. Psychiatric disorders and eating disorders 5. Alcohol, drugs, allergies 6. Smoking, weight
Reproductive health goals	1. Duration of partnership 2. Plans for motherhood 3. Long-term contraception required?

General history

Most important aspects to avoid severe complications

General history

Exclude

1. History of venous blood clot (venous thrombosis), stroke or heart attack
2. Thrombogenic mutations
3. Migraine with aura
4. Hypertension (≥160/≥100 mmHg)
5. Severe liver or gall bladder disease
6. Systemic lupus erythematosus
7. Diabetes with vascular complications
8. Smoking and age >35 years
9. A venous blood clot (venous thrombosis), stroke or heart attack in any first-degree relative aged ≤50 years

Personal situation and reproductive health goals

Reproductive health goals

1. Duration of partnership
2. Plans for motherhood
3. Long-term contraception required?
4. Financial issues
5. STI protection

Positive family history

How high is the VTE risk in non-CHC users without a history of thrombophilia?

Family history	**VTE risk OR (1)**
Negative	1.0
Positive, any relative	2.2
Positive, relative <50 years	2.9
More than one relative	2.9
Two relatives, one <50 years	4.0

Relation to proband	**VTE risk OR (2)**
Sibling	2.5
Son/daughter	2.6
Parent	2.1
Second-degree relative	1.5–2.3
Two relatives, one <50 years	4.0

Multiplication of risks: the risk with additional use of CHC is about 15-fold

Adapted from Bezemer et al.: Arch Intern Med 2009: 23:610-5. Zoeller et al.: Thromb Haemostat 2013: 1164-71.

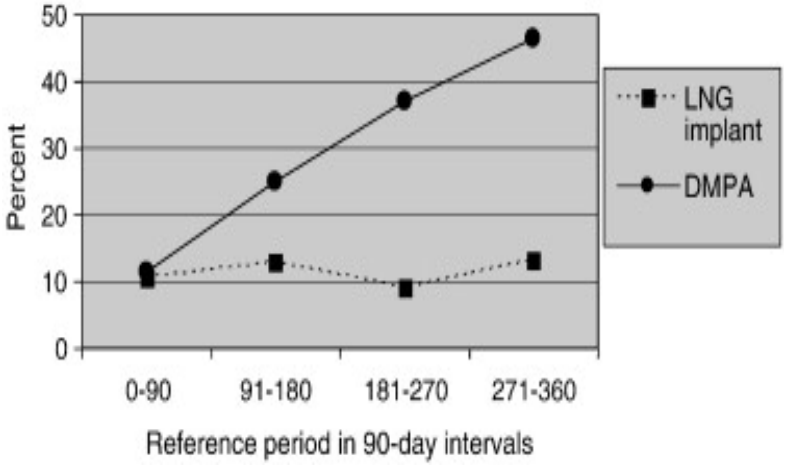
Positive family history
Probable VTE risk for CHC users

- The VTE risk with a first-degree relative is two-to threefold
- The risk with additional use of CHCs is 15-fold (Ref 1)
- CHCs should not be prescribed in this situation; a progestin-only method or IUD should be used instead

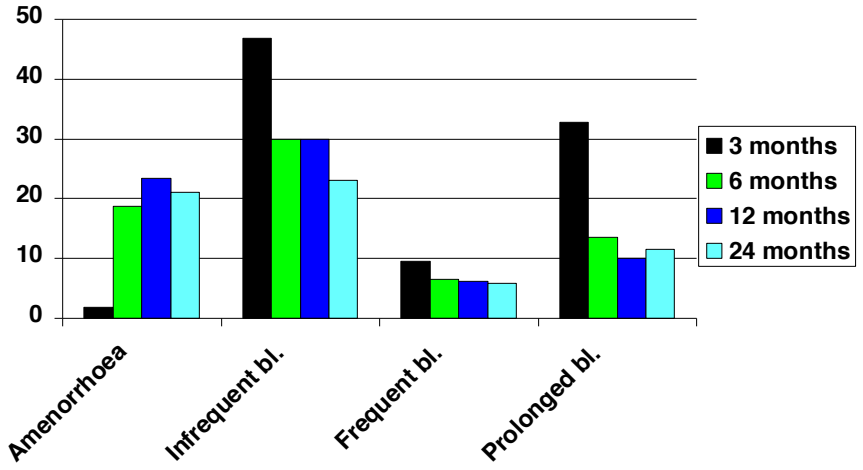
Sonnevi K et al. Self-reported family history in estimating the risk of hormone, surgery and cast related VTE in women. Thromb Res 2013; 132: 164–9

Bleeding pattern: Amenorrhoea

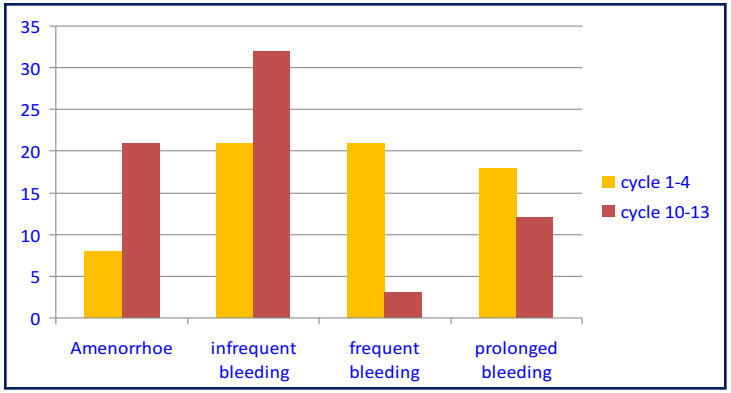
DMPA
% Amenorrhoea



Implant



POP



Amenorrhoea after 1 year

DMPA i.m./s.c.	47–60%
Implant	20%
POP	20%

Hubacher, D. et al. Contraception 2009;80:113-8. Affandi, B. Contraception 1998:58;99S-107S.
No authors listed. EJCRHC 1998 Dec;3(4):169-78. Arias et al. Contraception 2006;74:234-8.

How to support the adolescent girl in choosing between the copper IUD and the LNG-IUS

Biological characteristics of adolescence

- Anovulation, irregular menstrual cycles
- Dysmenorrhoea
- Cervical ectopy, increased susceptibility to STIs/PID

Psychosocial characteristics of adolescence

- Sexual activity, risky sexual behaviour
- Eating disorders, drug abuse

LNG-IUS use will result in:

- Protection of the endometrium
- Reduction in the number of days of bleeding
- Improvement in dysmenorrhoea
- Acne in some women