Instruction for the patient

Your situation

- You are 33 years old and use a combined pill containing 30 µg ethinylestradiol and drospirenone (antiandrogenic), which you started using 3 years ago
- You began using this pill because of its positive impact on your acne
- Your cousin had a postpartum DVT 6 months ago and was diagnosed with a prothrombin G20210A mutation
- You were also tested, but do not have thrombophilia
- You want to have children within 2 years

Instruction for the patient

Your questions for the doctor

1. What is the DVT risk if I continue with this pill?
2. Will I have a lower DVT risk if I change to a CHC containing less EE or another progestin, or to the vaginal ring?
3. What other contraceptive options do I have?
4. If I have to change contraceptive method, what effect will it have on my skin?
5. How should I balance the risks and benefits?

Instruction for the doctor to question 1:

What is the DVT risk if I continue with this pill?

- Collect further information on the woman's history to exclude/find out other risk factors for DVT
  Information for the doctor: the woman has no other risk factors, no first-degree relative with DVT, no other medical conditions and uses no medication
- Evaluate future plans with regard to family planning
  Information for the doctor: the woman is nulliparous and wants her first child in 1–2 years; her partner will not use a condom
- Discuss the DVT risk if she continues the CHC
  Information for the doctor:
  - *She has a positive family history of DVT in a second-degree relative*
  - *She has used a CHC for several years without complications*
  - *Her age is <35 years*
  - *Inform her that her DVT risk is slightly elevated, but not to the same extent as that of a new user*

Instruction for the doctor to question 2:

Will I have a lower DVT risk if I change to a CHC containing less EE or another progestin, or to the vaginal ring?

- Her risk of DVT is associated with her second-degree relative, and the risk will not be lowered by decreasing the estrogen dose or switching to a natural estrogen, vaginal or transdermal application, or by using a second generation progestin

Instruction for the doctor to question 3:

What other contraceptive options do I have?

- Discuss the advantages and disadvantages of POC and intrauterine devices in this context
- *Information for the doctor:*
  - *As the couple plans to have children within 2 years, long-term methods are not the best option with regard to cost/benefits*
  - *Use of the progestin-only pill is a good option, as it is not associated with an elevated risk of DVT, but there is no positive effect on the skin. Efficacy is high and the main side effect is irregular bleeding especially during the first months of use. Fertility returns immediately.*
  - *Discuss use of an IUD vs a POP*

Instruction for the doctor to question 4:

If I have to change contraceptive method, what effect will it have on my skin?

- No progestin-only method will have a positive impact on acne

Instruction for the doctor to question 5:

How should I balance the risks and benefits?

- If the woman accepts the slightly elevated DVT risk, CHC use in this case could be continued until her first pregnancy
- Explain the symptoms of DVT and pulmonary embolism should she wish to continue with CHC use
- Taking her age into account, restarting a CHC after pregnancy would not be recommended
- If she does not want to accept the slightly elevated DVT risk, she should use a POP
- An IUD would also be an option, but it is a LARC method

General history

More issues important to address before balancing risks and benefits

General history	1. Medical conditions 2. Surgery 3. Medication (include phytotherapeuticals) (consider potential interactions) 4. Psychiatric disorders and eating disorders 5. Alcohol, drugs, allergies 6. Smoking, weight
Reproductive health goals	1. Duration of relationship 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. Venous blood clot (venous thrombosis), stroke or heart attack in any first-degree relative aged ≤50 years

Further detailed information is available from www.fptraining.org

Risk factors for VTE

a. A family history (first-degree relative <50 years)
b. Thrombophilia
c. Obesity
d. Age? → Risk is more on the arterial slide
e. Smoking? → Risk is more on the arterial slide

Consider the multiplicative effect of risk factors

Positive family history

How high is the VTE risk in none CHC users without check for thrombophilia ?

Family history	**VTE-Risk odds ratio (1)**
negative	1
positive any relative	2.2
positive relative < 50 years	2.9
> 1 relative	2.9
2 relatives, one <50 years	4

Relation to proband	**VTE-Risk odds ratio (2)**
Sibling	2.5
Son/daughter	2.6
Parent	2.1
Second degree relative	1.5-2.3
2 relatives, one <50 years	4

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.

VTE: Estrogen type and dosage

- No difference in VTE risk has been found between pills containing 20 µg or 30 µg ethinylestradiol
- CHCs containing estradiol or estradiol valerate are not associated with a higher risk of VTE in comparison with third generation CHCs. The VTE risk is not lower or is equal to that of second generation pills (EE/LNG)
- VTE risk of the combined vaginal ring and patch is comparable to that of third generation pills

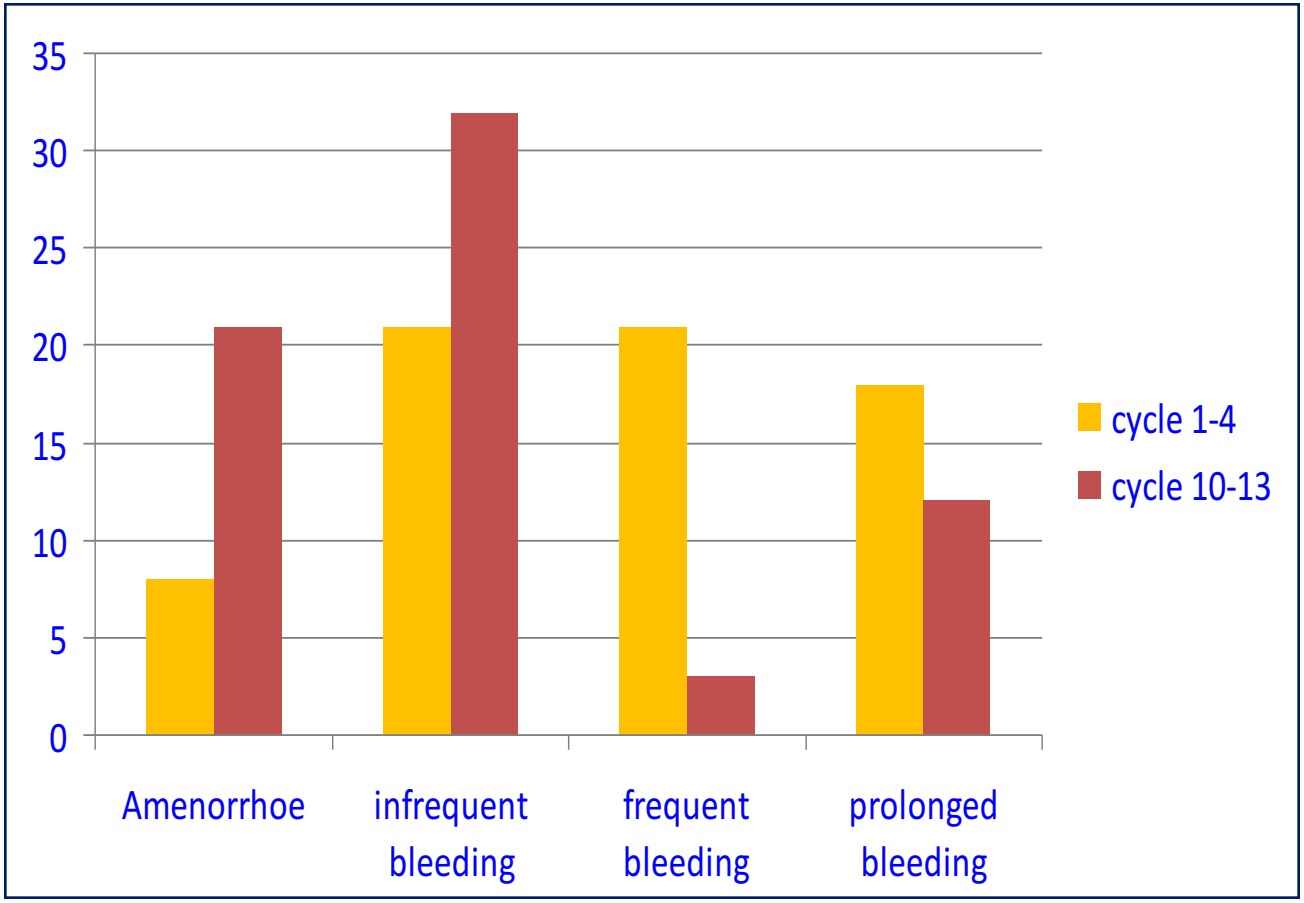
Adapted from Lidegaard et al.: BMJ 2011;25:43. Dinger et al.: Contraception 2016;94:328-39.

IUD POC: Advantages and disadvantages

- Copper IUD in nulliparous women: dysmenorrhoea, prolonged bleeding, uncomfortable insertion
- LNG-IUS: <10% develop acne, less bleeding, insertion may be uncomfortable
- POP: irregular bleeding , < 10% acne
- DMPA: irregular bleeding, long-term amenorrhoea, delayed return of fertility
- Implant: irregular bleeding, <10% develop acne

None of these methods increases the risk of VTE

Bleeding pattern with desogestrel 75 µg over 13 cycles (% of women)



Collaborative Study Group on the Desogestrel-containing Progestogen-only Pill. A double-blind study comparing the contraceptive efficacy, acceptability and safety of two progestogen-only pills containing desogestrel 75 µg/day or levonorgestrel 30 µg/day. Eur J Contracept Reprod Health Care 1998; 3: 169–78. n=540;13 cycles