Instruction for the patient

Your situation

- You are a 38-year-old, woman who is pregnant with her third child
- You and your partner agree that with this child your family is complete
- In the past, you used a COC for contraception. Although you were satisfied with your bleeding pattern, you experienced loss of libido
- You are looking for a non-hormonal, effective and permanent method of contraception
- You are in discussion with your partner about the possibility of a vasectomy, but he wants more information before deciding
- If there is a caesarean delivery, you would opt for a tubal ligation

Instruction for the patient

Your questions for the doctor

1. Can I be sterilised after the caesarean delivery, or is it better that my partner has a vasectomy?
2. What is the risk of an unwanted pregnancy after post-caesarean sterilisation, and after vasectomy?
3. What effect will sterilisation have on my bleeding pattern and libido?
4. Are there any physical or sexual consequences of a vasectomy?
5. What can we do if we regret the sterilisation in the future?

Instruction for the doctor to question 1:

Can I be sterilised after the caesarean delivery, or is it better that my partner has a vasectomy?

- Explain the differences in technique, setting and method of analgesia between postpartum sterilisation and vasectomy
- Explain the differences in morbidity rate between the procedures
- Inform her that vasectomy is safer, less costly and has a shorter recovery time than tubal ligation, but a confirmation test is needed after 3 months
- Mention the financial aspects

Instruction for the doctor to question 2:

What is the risk of an unwanted pregnancy after post-caesarean sterilisation, and after vasectomy?

- Describe the effectiveness results of CREST and other studies
- Mention the 1 in 3 risk of an ectopic pregnancy

Occlusion method	Failure rate per 1000 women in 10 years
All methods	18.5 (15.1–21.8)
Postpartum partial salpingectomy	7.5 (2.7–12.3)
Falope ring	17.7 (10.1–25.3)
Interval partial salpingectomy	20.1
Bipolar electrocautery	24.8 (16.2–33.3)
Filshie clip	1.2 after 1 year; 2.4 after 5 years?
Essure hysteroscopy	1.28–3.14 within 5 years
Vasectomy	1.5/1000 in the first year

Instruction for the doctor to question 3:

What effect will sterilisation have on my bleeding pattern and libido?

- Ask the woman about her bleeding pattern when she was not using any hormones and inform her that this bleeding pattern will probably recur, regardless of the kind of sterilisation procedure
- Discuss the many factors that may influence libido, and stress that stopping the pill is no guarantee of improved libido

Instruction for the doctor to question 4:

Are there any physical or sexual consequences of a vasectomy?

- Discuss risk of bleeding and/or haematoma formation, infection, sperm granuloma and post-vasectomy pain syndrome
- Confirm that no increase in cardiovascular disease, cancer of the prostate or testes, or immune disorders has been reported
- Admit that there might be an increase in kidney stone formation
- Reassure her that limited evidence suggests no association of vasectomy with any specific sexual problem such as lack of interest in sex, problems maintaining an erection, or taking too long to reach orgasm

Instruction for the doctor to question 5:

What can we do if we regret the sterilisation in the future?

- Discuss the percentages and reasons for regret after tubal ligation and vasectomy
- Explain that reversal of tubal ligation is often not feasible, whereas successful reversal of vasectomy is reported in 50–70% of procedures, depending on interval duration and closure of the testicular end
- Mention the probability of ongoing pregnancy after tubal reversal
- Mention the possibility of assisted reproductive technology in case of unsuccessful reversal

Complications of vasectomy

- Safest method of permanent sterilisation
  - Mortality 0.5/100,000
  - Major complications 1 in 1250
  - Minor complications 1–6%
- Haematoma (non-scalpel 0.1–2.1% vs incision 0.3–10.7%)
- Infection (non-scalpel 0.2–0.9% vs incision 1.3–4.0%)
- Sperm granuloma
- Persistent post-vasectomy pain (2–15%)
  - Chronic congestive epididymitis
  - Sperm granuloma
  - Nerve entrapment
- Vasectomy failure (recanalisation 0.2%)

Male sterilisation
Associated morbidity concerns

- Cardiovascular disease: no increased risk
- Prostate cancer: slightly increased risk (12.4% vs 12.1%; RR 1.10, 95% CI 1.04–1.17)
- Testicular cancer: no increased risk
- Immune dysfunction: no increased risk
- Kidney stones:
  - ≤45 years: twofold increased risk (RR 1.9, 95% CI 1.2–3.1)
  - >45 years: no increased risk
- Sexual life
  - No more sexual problems
  - No decreased sexual frequency
  - Improved sexual satisfaction of couples

Risk of regret after sterilisation (1)

- Request for reversal 1–4%
- Age is the strongest predictor for:
  - Sterilisation regret
  - Seeking information about sterilisation reversal
  - Obtaining a reversal
  - Undergoing a post-sterilisation IVF procedure

Age at sterilisation	Cumulative 14 year probability of requesting reversal		Likelihood of obtaining reversal	Probability of ongoing pregnancy after tubal reversal
18–24 years	40.4%	20.3%	2.1%	63%
25–30 years	15.6%			
31–35 years	8.2%	5.9%	0.2%	
>35 years	4.4%			44% (35–40 years); 5% (>40 years)

Risk of regret after sterilisation (2)

- Significant predictors (adjusted OR and 95% CI)
  - Non-white race: 1.3 (1.1–1.5)
  - Being unmarried: 1.3 (1.1–1.6)
  - Postpartum sterilisation: 1.6 (1.2–2.1) after vaginal delivery; 2.0 (1.5–2.8) after caesarean delivery
  - Shorter interval between sterilisation and youngest child: 1.4 (1.1–1.8)
  - National insurance status: 1.8 (1.4–2.3)
- Inconsistent predictors
  - Conflict about decision
  - Low socioeconomic status
  - Low education
  - Low labour force
  - Rural area
- No predictors
  - Parity, including nulliparity
  - Postabortion sterilisation

Vasectomy reversal

- Strongest predictive factor
  - Unstable relationship
- Less likely predictive
  - Men without children
  - Men older than 30 years
- Not predictive
  - Religion
  - Number of marriages
  - Occupation
- Microsurgical procedure
- Successful in 50–70%, depending on
  - Method of vasectomy (open testicular end preferred)
  - Duration of obstruction
    - <3 years: patency rates >95%, pregnancy rate 75%
    - >15 years: patency rates 71%, pregnancy rate 30%
  - Agglutinating and immobilising antisperm antibodies