

Updating oral contraceptives, injectables, implants, barrier methods of contraception

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- a high level of contraceptive prevalence is a necessary component of the demographic changes, which accompany the transition status of a country
- doctors have a duty to provide adequate information about all the different contraceptive methods available, in order that women can make an informed selection of the method which is most appropriate to their needs and circumstances



University to university venture

**East-West collaboration
in the field
of reproductive health**



Manual of Family Planning

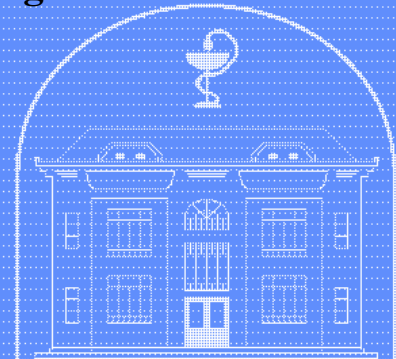
dr. Hihai Horga, dr. Frank Ludicke, dr. Aldo Campana



Manual of Family Planning

- teaching material for general practitioners who work in the family planning network
- less intensive courses for doctors who are the backbone of the health care system
- maybe for training of medical students

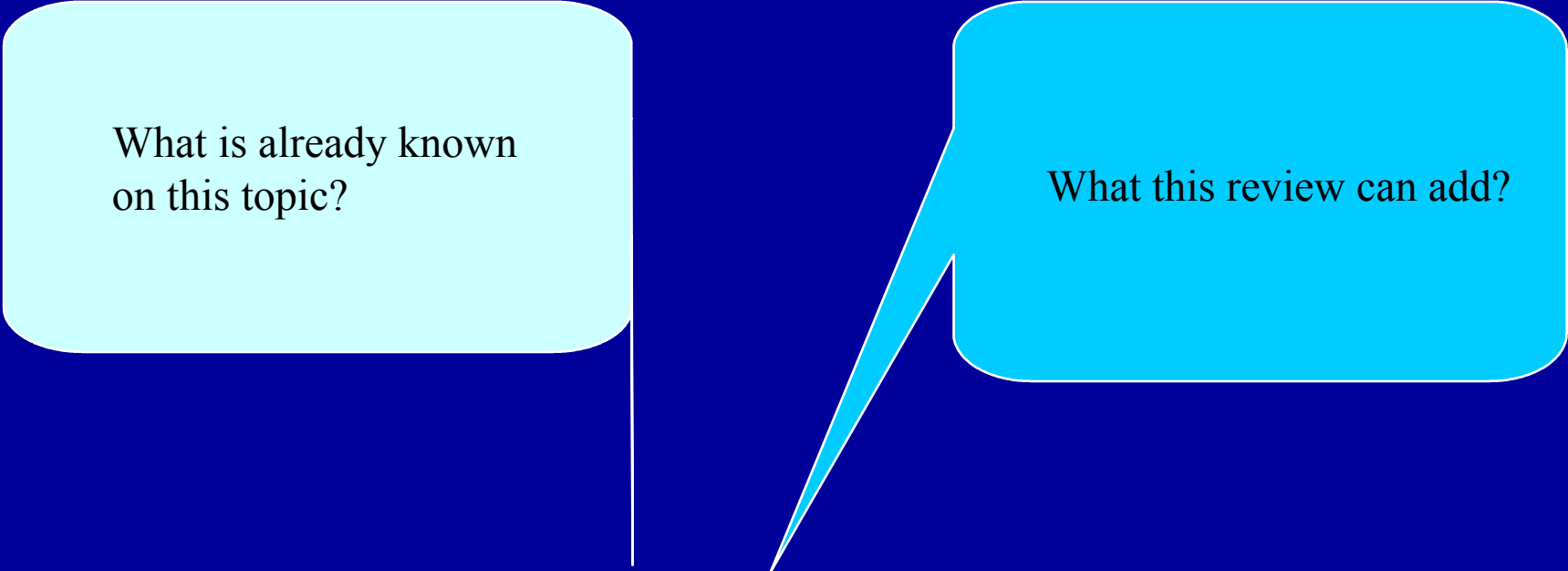
**East European Institute of
Reproductive Health,
Targu-Mures**



Manual of Family Planning

- ✘ Anatomy and physiology
- ✘ Oral contraceptives
- ✘ Injectable contraceptives
- ✘ Implants
- ✘ Intrauterine devices
- ✘ Barrier methods and spermicides
- ✘ Natural family planning
- ✘ Emergency contraception
- ✘ Voluntary surgical contraception
- ✘ Abortion
- ✘ Infertility

Objectives: the aim of this review was to update four chapters of this manual and provide some guidelines for a new updated manual.



What is already known
on this topic?

What this review can add?

Material and methods: a medline research of articles published from 1995 to 2001 was performed.

Results

- history
- definition
- mechanism of action
- formulations
- advantages
- disadvantages
- relation to major relevant pathology

Oral contraceptives - new formulations

- **Yasmin** - new low-dose monophasic oral contraceptive, containing 30 µg ethinyl estradiol and 3 mg **drospirenone**
 - » the progestogenic action of drospirenone results in inhibition of ovulation
 - » its antiandrogenic activity could lead to suppression of symptoms such as acne and hirsutism
 - » its antimineralocorticoid activity may reduce estrogen induced sodium and water retention
- **Mircette** - reduces the placebo interval to two days
 - » designed to reduce incidence of escape ovulation
- **Seasonale** - extends the active medication to 84 days

Oral contraceptives - relation to major pathology

- **Venous thromboembolism (VT)**
 - a meta-analysis of the articles published from October 1995 to December 2000 - the 3rd generation oral contraceptives have a 1.7- fold increased risk of VT compared with 2nd generation
- **Myocardial infarction (MI)**
 - WHO case-control, multicentre, study - current use of oral contraceptives is associated with an increased risk of MI only among women with cardiovascular risk
- **Stroke**
 - according to the WHO Scientific Group both ischaemic and haemorrhagic stroke are rare in nonsmoking women under 35 years who use oral contraceptives

Injectables - formulations

- Progestogen-only injectable preparations
- Combined injectable preparations
 - a new prefilled injection system called **UniJect** was developed as a delivery mechanism for Cyclofem
 - it could be self-administered with little training (women were successfully trained to use it)
- New developments-immunocontraceptives
 - a vaccine employing hCG has advanced to the stage of clinical testing



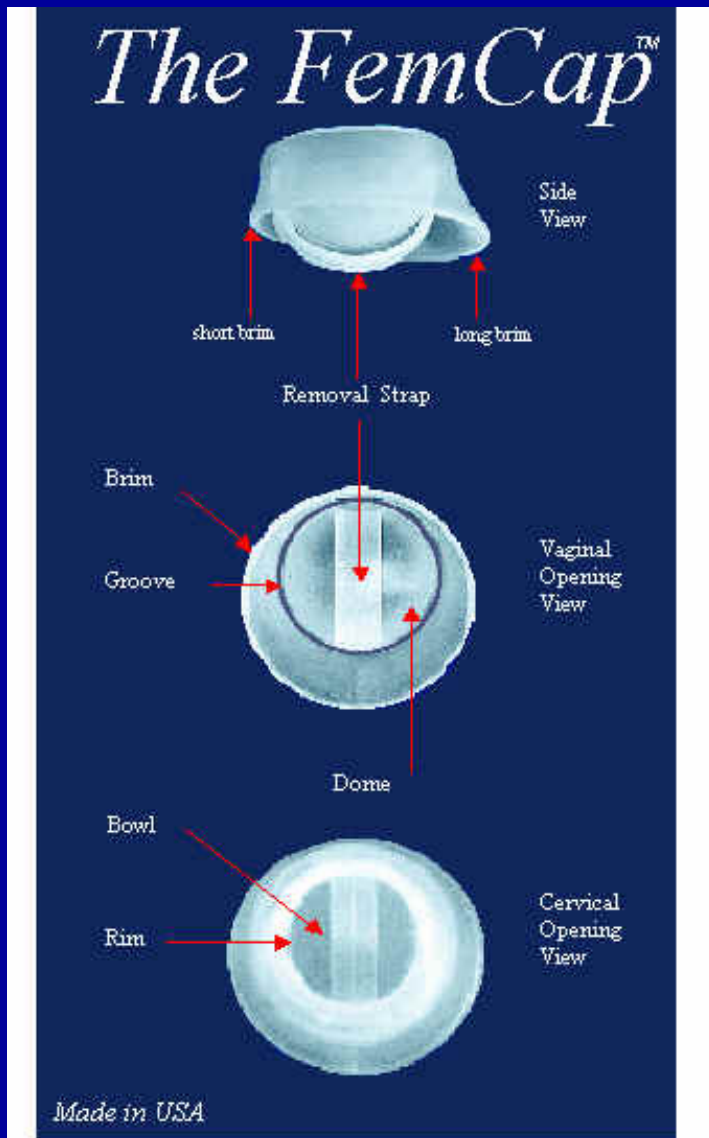
Implantable contraceptives

- **Implanon** is a new nonbiodegradable single rod implant 40 mm long and 2 mm diameter. It consists in 68 mg etonorgestrel in an ethylene-vinyl-acetate membrane. It is delivered preloaded in a disposable applicator.
- a comparative study on the insertion and removal of implants shows:

	insertion	removal
Norplant	4.3 min	10.2 min
Implanon	1.1 min	2.6 min
- compared to Norplant there was less frequent bleeding with Implanon, whereas the incidence of infrequent bleeding and amenorrhoea was higher



Barrier methods of contraception



- FemCap is a new silicone rubber barrier contraceptive shaped like a “sailor ’s hat”
- it was designed to result in fewer dislodgements and less pressure on the urethra than cervical cap and diaphragm and to require less clinician time for fitting (it comes in only three sizes)
- a randomised, open-label study, evaluating the safety and efficacy of FemCap and diaphragm conclude that both devices were comparable with regard to safety and acceptability but more women reported problems with FemCap with regard to insertion, dislodgement and especially removal, although their general assessments were positive

Conclusions

- during the past four decades, **oral contraceptives** remained a safe and effective method of birth control. In order to provide better choices of oral contraceptives, there is a need to consider new formulations, such as Yasmin. It is clear that there is a growing number of significant noncontraceptive benefits that accrue in oral contraceptive users.
- **Injectables** are a contraceptive choice worldwide. Self-administration of contraceptive methods is desirable because it offers women greater privacy.
- **Implantable** contraception represents a safe, reversible form of long-term family planning. New contraceptive implants, such as Implanon may be available accentuating the advantages of Norplant while minimising the disadvantages
- **Barrier contraceptives** offer women a method that is without systemic side effects. New barrier methods have undergone clinical trials and approval is pending.

Thank you!