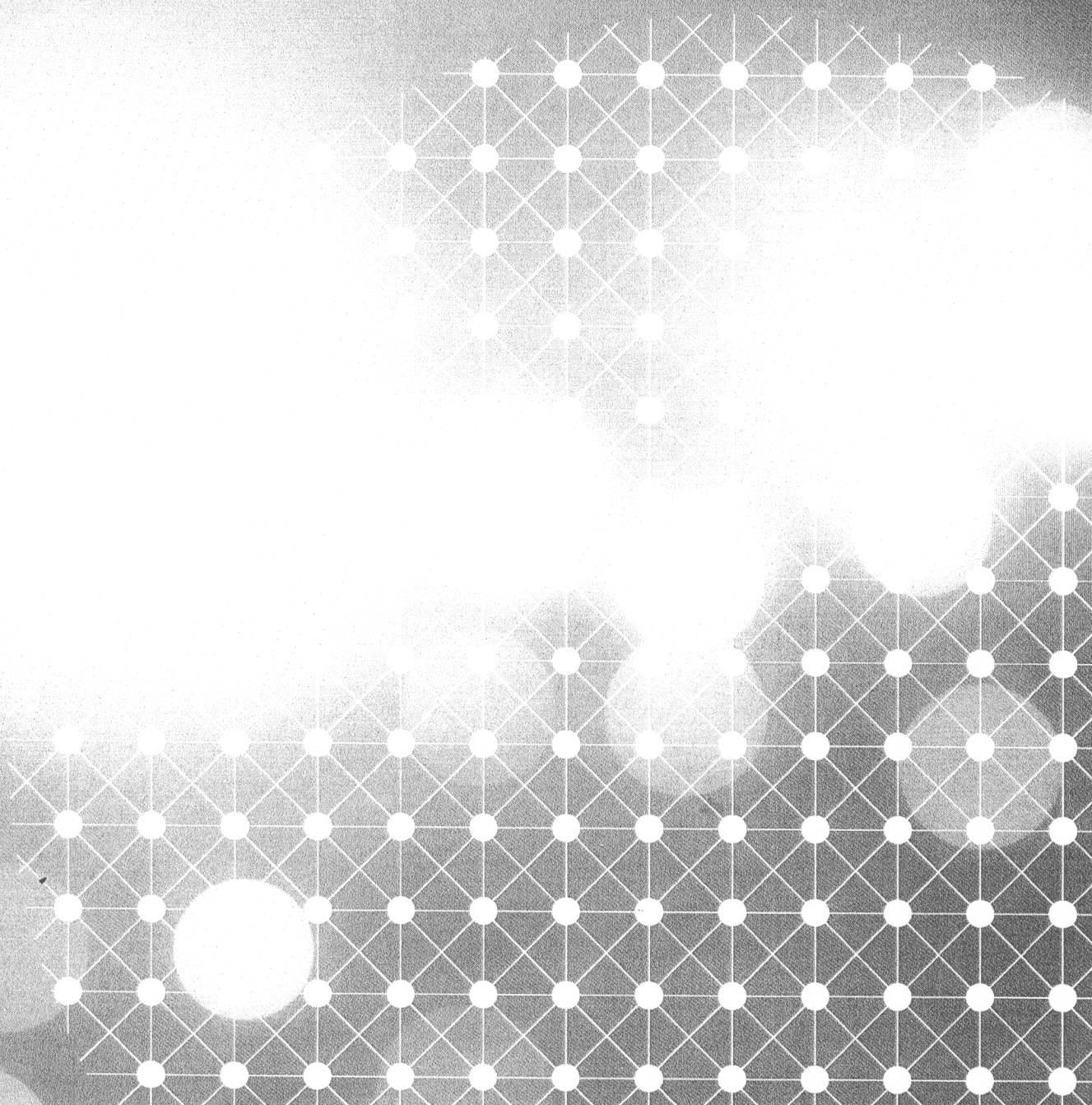


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ORAL CONTRACEPTIVE PRACTICE GUIDELINES

Several conditions may lead to the prescription of an oral contraceptive (OC). The first reason is obviously the need for contraception. Sometimes, this need is associated with the need of treating disturbances related to an abnormal hormonal balance or menstrual ciclicity. Prescribability of a contraceptive to women with different pathologies is clearly defined in many guidelines published by the WHO or national and international societies. On the other hand, the choice of the type of contraceptive to use in each single woman is a task more delicate, requiring fine tuning of different ingredients: regimens, estrogen molecules, estrogen doses, progestin components. When achieved, appropriate individualization may bring an optimal solution to the woman need and allow long term use of contraception.

Regimens of administration of an OC can be different; 21 days of OC with 7 days of free interval (21/7); or 24/4 or 84/7 or 180/7 or 365 days of OC. Cyclic menstruation is not necessary during OC, but a considerable number of women still want to experience it. Social or medical reasons lead many women to despise menses and to delay them up to amenorrhea. For these women extended and prolonged regimen are useful. In terms of efficacy these regimens are more effective, and they induce less disturbances linked to menstruation. Thus, they may also be chosen by those women with premenstrual syndrome, catamenial epilepsy or headache, or heavy menstrual bleedings. The estrogenic component may give us the opportunity to furnish a different metabolic impact on the woman body. More intense with ethynyl estradiol, in a dose-related fashion, and and more gentle or almost neutral with estradiol. The estrogenic component has a limited, if any contraceptive role, but its task is to maintain a stable endometrium. In addition, by stimulating the synthesis of many liver proteins

(lipoproteins, sex-hormone-binding-globulin, angiotensinogen, clotting factors) estrogens are responsible for some positive (favourable lipoprotein profile, increase of SHBG in hyperandrogenic women) and negative (hypertension, thrombosis) effects of OC. These effects are less evident at lower ethynyl estradiol doses and with the use of estradiol. OCs with estradiol are more neutral on metabolism and cardiovascular risk factors. The choice of the progestin component is critical. Progestins derive by the biochemical modification of either testosterone and its derivatives (androgenic progestins), progesterone and its derivatives (non androgenic and anti-androgenic progestins), or spironolactone (anti-aldosteronic and anti-androgenic progestins). Androgens counteract the effect of estrogens on the synthesis of liver proteins. Accordingly, more a progestin is androgenic and more it counteracts the effect of estrogens on liver protein synthesis (positive or negative). Viceversa, progesterone does not exert this effect and non-androgenic progestin do not influence estrogens effects on the liver. Some progestins may bind to glucocorticoid receptors and act as glucocorticoid agonists. Progestins have also a different half-life: from less than 24 hours to about 54 hours. Progestin with longer half life are likely to inhibit the reproductive axis in a more stable way than progestins with a shorter half life. Progestins may also have a different potency on the endometrium. A stronger progestin on the endometrium may give advantages to women with heavy menstrual bleeding. By the combination of different progestins, with different types and doses of estrogens, and different regimens of administration, we may have a so variate armamentarium that most of the women may receive an appropriate individualized prescription of an OC. This should bring a benefit to the woman's health and to her commitment to use an OC.