

Algorithm 4: Pharmacological treatment for non-fertility indications

Off label prescribing: COCPs, metformin and other pharmacological treatments are generally off label in PCOS, as pharmaceutical companies have not applied for approval in PCOS. However, off label use is predominantly evidence-based and is allowed in many countries. Where it is allowed, health professionals should inform women and discuss the evidence, possible concerns and side effects of treatment.

In those with a clear PCOS diagnosis or in adolescents at risk of PCOS (with symptoms)

Education + lifestyle + first line pharmacological therapy for hyperandrogenism and irregular cycles

COCP First line

Use lowest effective estrogen dose (20-30 micrograms ethinyl oestradiol or equivalent)

Consider natural estrogen preparations balancing efficacy, metabolic risk profile, side effects, cost and availability

Follow WHO COCP general population guidelines for relative and absolute contraindications and risks

35 micrograms ethinyl oestradiol plus cyproterone acetate not first line in PCOS due to increased adverse effects

Hirsutism requires COCP and additional cosmetic therapy for at least 6 months

Consider additional PCOS related risk factors such as high BMI, hyperlipidemia and hypertension

Note:

Other contraceptives don't suppress hepatic SHBG production with limited efficacy for hyperandrogenism

Second line pharmacological therapies

COCP + lifestyle + metformin

No COCP preparation is superior in PCOS.

Should be considered in women with PCOS for management of metabolic features, where COCP + lifestyle does not achieve goals.

Could be considered in adolescents with PCOS and BMI $\geq 25\text{kg/m}^2$ where COCP and lifestyle changes do not achieve desired goals.

Most beneficial in high metabolic risk groups including those with diabetes risk factors, impaired glucose tolerance or high-risk ethnic groups.

COCP + anti-androgens

Evidence in PCOS relatively limited.

Anti-androgens must be used with contraception to prevent male fetal virilisation.

Can be considered after 6/12 cosmetic treatment + COCP if they fail to reach hirsutism goals.

Can be considered with androgenic alopecia.

Metformin + lifestyle

With lifestyle, in adults should be considered for weight, hormonal and metabolic outcomes and could be considered in adolescents.

Most useful with BMI $\geq 25\text{kg/m}^2$ and in high risk ethnic groups.

Side-effects, including GI effects, are dose related and self-limiting.

Consider starting low dose, with 500mg increments 1-2 weekly.

Metformin appears safe long-term. Ongoing monitoring required and has been associated with low vitamin B12.

Anti-obesity medications can be considered with lifestyle as per general population guidelines, considering cost, contraindications, side effects, availability and regulatory status and avoiding pregnancy when on therapy.

Inositol (in any form) should currently be considered experimental in PCOS, with emerging evidence of efficacy highlighting the need for further research.