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# Catching up on contraception

## Background

Providing contraceptive advice is a core activity in general practice. There have been numerous changes to the contraceptive options available in Australia over the past 10 years. It is important that general practitioners are aware of these changes so that they can advise patients appropriately.

## Objective

This article examines the changes that have occurred in contraception over the past decade and discusses the implications of these changes to clinical practice.

## Discussion

Up-to-date knowledge about how the combined oral contraceptive pill works is reflected in changes to packaging and formulations, with varying success. Other changes include the over-the-counter availability of emergency contraceptive pills and the new combined hormonal vaginal ring. There has been a resurgence in intrauterine device use and their insertion has Level 1 (nonprocedural) indemnity status in most medical defence organisations. Bleeding with long acting progestogen only contraception remains a problem and management options include antiprostaglandins, tranexamic acid, doxycycline, the combined oral contraceptive pill and removal of the device. Sterilisation remains an option for older men and women and newer methods are available.

■ **Currently the most common contraceptive choice in Australia is the combined oral contraceptive pill (COCP) – known widely as ‘the pill’.<sup>1</sup> Most doctors recognise the flexibility and simplicity of the monophasic preparations as the choice for first oral contraception.**

New knowledge about how the COCP works is reflected in changes to packaging. It is now clear that the hormonal pills work immediately as a contraceptive if started between days 1–5, where day 1 is the first day of a woman’s menstrual cycle.<sup>2</sup> Newer packaging enables starting and continuing cycles with hormone containing pills. For example, some pill packets now contain two separate cycles of active and placebo pills which run in opposite directions. The instructions are to start with a hormone containing pill and complete that cycle before moving to the cycle of the placebo pills, which is in the opposite direction.

Some COCPs have moved to credit card shaped packaging but retain the old 28 sequential pills and instructions. The advice is to ‘start in the red’ which includes five placebo tablets and actually marks the withdrawal bleed. Following these instructions, if a woman starts taking the pills on a Monday, she could take five inactive pills at the outset. This would take her beyond the day 1–5 window of follicular inactivity and negate your reassurance that starting between days 1–5 is immediately effective. To avoid this problem, you can either prescribe a COCP that is more sensibly packaged, eg. as two separate cycles, or show the patient how to recognise the difference between the hormone and placebo pills, emphasising how to rationally start the COCP for immediate contraceptive effect.

As always, other contraception is needed for 7 days following more than two missed hormone pills or starting the COCP at any time of the cycle other than days 1–5. This is known as the ‘7 day rule’.

## New COCP formulations

When lower dose pills (20 µg) first became available, they contained the standard formulation of 21 days ethinylloestradiol (EE) and



levonorgestrel (LNG) and seven placebo pills. There is now also a formulation of 24 days of EE and drospirenone, with four sugar pills to make up the month. The shorter inactive cycle may result in lighter withdrawal bleeds, although it has not been shown to have a better contraceptive effect. The formulation is also indicated for decreasing premenstrual syndrome (PMS) symptoms, as are other COCPs and any other anovulatory contraceptive method.

A shorter inactive cycle could be useful for those women who get an oestrogen withdrawal headache as it shortens the time off oestrogen. Women who suffer from these headaches also benefit from low dose hormone therapy preparation during the placebo cycle. The progestogen withdrawal bleed should not be affected by adding low dose oestrogen. The new low dose, shorter acting inactive cycle COCP is not available on the Pharmaceutical Benefits Scheme (PBS). The cost of ongoing contraception means practitioners are rightly cautious about offering non-PBS listed options, even if they are from the samples cupboard!

Combined oral contraceptive pill formulations with extended hormone pills are not yet available in Australia. One example contains 84 hormone pills followed by a 7 day break. These pills reflect changes in patterns of use, with many women skipping placebo pills and taking the hormone pills continuously when travelling or at other times when menstruating may be inconvenient. These women are opting for amenorrhoea as a lifestyle choice.

Continuous use of active pills can result in breakthrough bleeding. It is important to ask about this practice when a woman presents with spotting or abnormal bleeding. Women should be advised not to extend the placebo or pill free time beyond 1 week and to have a week long break from hormone taking if breakthrough bleeding develops.

## Emergency contraception

Emergency contraceptive pills are now scheduled as Pharmacy Medicines (S3) and are available over-the-counter. The two available LNG preparations are now repackaged as a single 1.5 mg dose to be taken as soon as possible (but can work up to 5 days), after unprotected sex.<sup>3</sup>

## New delivery systems

The efficiency and acceptability of combined hormones has led to the development of newer delivery systems. The combined hormonal

vaginal ring is a clear plastic ring which is inserted and left in the vagina for 3 weeks and then removed for 1 week, during which the withdrawal bleed occurs. The absorption of hormones through vaginal epithelium bypasses the portal circulation, allowing the use of a low dose (EE 20 µg and etonorgestrol 75 µg per 24 hours) which can reduce side effects. Unfortunately this is not listed on the PBS, so ongoing cost is an issue.

The combined contraceptive patch (not available in Australia) is a 20 mm square patch worn for 1 week and then replaced for 2 more weeks before a week's break, which is associated with a withdrawal bleed.

## Intrauterine devices

Studies in the 1980s showed that the risk of pelvic inflammatory disease (PID) with intrauterine device (IUD) use was only increased in the 20 days immediately after insertion.<sup>4</sup> However, until recently, the IUD has been an infrequent contraceptive choice for Australian women.

A resurgence in the use of the IUD has occurred since the introduction of the LNG containing IUD, and especially since 2007 when it became available on the PBS to treat menorrhagia as well as for contraception. This has been assisted by the return of IUD insertion to the scope of ordinary general practice with Level 1 indemnity status in most medical defence organisations (*Table 1*).

Copper IUDs (duration of use 5–10 years) are less frequently chosen and do not have the significant advantage of the decreased menstrual bleeding that occurs with the LNG IUD (duration of use 5 years). Nonetheless, if hormones are not tolerated and/or longer term contraception is needed, copper IUDs can be an excellent choice for older women and for suitable younger and/or nulliparous women. If there is clinical evidence of acute PID immediately after insertion, current advice is to leave the IUD in situ and treat aggressively with antibiotics.<sup>5</sup>

## Long acting progestogen only contraceptive methods

The 'set and forget' long acting progestogen only contraceptive methods are increasingly popular and extremely reliable. They include the etonogestrel contraceptive implant, which lasts for 3 years, and the medroxyprogesterone acetate depot injection, which lasts 3 months. Both can be used in the postnatal period in breastfeeding women.<sup>6</sup> There were some initial concerns about the etonogestrel implant relating to incorrect insertion technique, but these have been countered by better training.

Table 1. IUD insertion and medical indemnity

Organisation	Indemnity level required	Comment
AVANT	Level 1 (nonprocedural)	
Medical Indemnity Protection Society (MIPS)	Level 2 (procedural)	Can be accepted at Level 1 if individuals who apply cite recent and ongoing experience
Medical Insurance Group (South Australia)	Level 1 (nonprocedural)	Evidence of family planning or 'SHine South Australia' IUD insertion training needed
MDA National	Level 1 (nonprocedural)	

Note: Please check individual medical indemnity organisations for full details

**Table 2. Practice points**

COCP	The packaging of COCPs has changed – packets with two separate active:inactive cycles are least likely to cause incorrect usage when first starting
Hormonal contraception	All hormonal contraception can be started between the first and fifth day of the menstrual cycle for immediate effect
IUDs	The LNG IUD can be inserted days 1–7 of the menstrual cycle; the copper devices inserted days 1–14 with immediate effect
'Set and forget' methods	Don't forget to enquire about these when listing current medications: IUDs and progestogen implants and injections are increasingly common

Progestogen only contraception frequently causes irregular bleeding, particularly in the first 3–6 months of use. In some cases it may be possible to avoid removal if the first few months can be made tolerable. A reasonable first line option is to offer antiprostaglandins. It is important to emphasise that these need to be taken in an adequate daily dosage – usually two tablets 3 times per day – as any reduction in dosage will destabilise the endometrium and result in increased bleeding. These medications are readily available over-the-counter. They need only be taken when bleeding and do not cause a withdrawal bleed. If this does not work, or is not tolerated, tranexamic acid can be considered as a second line (500 mg x 2, 3–4 times per day). There is some evidence that doxycycline, a matrix metalloproteinase inhibitor, can also successfully stop endometrial breakdown.<sup>7</sup>

If none of the above methods are effective, then adding the COCP, used continuously for 4–6 weeks, will often stop bleeding. Unfortunately any hormonal preparations cause a withdrawal bleed on cessation, which is rarely greeted with delight. If these options fail, the implant may need to be removed or the injection discontinued.

### A word of caution

A word of caution when taking an initial medical history: the COCP can be left out of 'current medications' and many women will forget to mention depot injections, IUDs or implants. This is of concern as drug interactions can occur, in particular the use of carbamazepine as a mood stabiliser in women, could reduce the effect of contraception by liver enzyme induction (*Table 2*).

### Sterilisation

Vasectomy and tubal sterilisation remain useful choices for older men and women. Essure™ is a new method of sterilisation which involves the hysteroscopic insertion, in conscious women, of a microcoil into the openings of the fallopian tubes. The microcoil contains a small fibre that provokes an intense local fibrotic reaction which blocks the fallopian tubes. A big advantage is that this is an outpatient procedure, which avoids the risks and expense of laparotomy and anaesthetic. The occlusion of the tubes is checked by hysterosalpingogram after 3 months, and if successful, the method is irreversible.

### Conclusion

Contraceptive advice is a core activity in general practice. There have been changes in knowledge, presentation and delivery systems over the past decade and there are likely to be further developments. The

resource *Contraception: An Australian clinical practice handbook* (2nd edition)<sup>5</sup> contains up-to-date and relevant Australian information. Most state family planning organisations also run ongoing education programs in sexual and reproductive health. These include training (or retraining) in IUD insertion, which is vital if this skill is to be returned to the domain of general practice.

### Summary of important points

- Up-to-date knowledge about how the COCP works is reflected in changes to packaging and formulations, with variable success.
- Other changes to contraceptive options include over-the-counter availability of emergency contraceptive pills, a resurgence in IUD use, and the new combined hormonal vaginal ring.
- Bleeding with long acting progestogen only contraception remains a problem and management options include antiprostaglandins, tranexamic acid, doxycycline, the COCP and removal of the device.
- Sterilisation remains an option for older men and women and newer methods are available.
- When taking an initial medical history don't forget to ask about contraception.

Conflict of interest: the author has been on the Advisory Board for Implanon, and has presented, at no financial gain, at meetings supported by Organon and Schering.

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