TIME FOR A CHANGE: INCREASING THE USE OF LONG ACTING REVERSIBLE CONTRACEPTIVE METHODS IN AUSTRALIA

Introduction

All women seeking contraception should be given accurate evidence-based information on the safety, efficacy, advantages and disadvantages of all methods and assisted to make a choice based on their personal needs, preferences and medical suitability. Long acting reversible contraceptives (LARCs) are those methods that require administration less than once per month.1

The LARC methods available in Australia are the depot medroxyprogesterone acetate (DMPA) injection, the etonogestrel contraceptive implant, the levonorgestrel (LNG) intrauterine device (IUD) and the copper IUD. In both the UK1 and the USA2 there are national recommendations on increasing LARC use to decrease unintended pregnancies and abortions. Despite international evidence, which strongly suggests that the use of LARCs reduces unintended pregnancy,3, 4 their use in Australia remains low.5, 6 There is a need to address the barriers to increasing the use of LARCs in Australia, particularly by young women who are highly fertile and have higher rates of unintended pregnancy and abortion.

Use of LARCs in Australia

Although there is no reliable routinely collected data on contraception use in Australia, available surveys and analysis of PBS and MBS data indicate that, while LARC method use is slowly increasing, uptake remains low in comparison to many other developed countries.7 Recent survey data8 suggests that implant, injectable and IUD methods combined are still used by fewer than 10% of Australian women6, 8 and that their provision in general practice is low. Only 15% of contraceptive consultations in general practice in 2011 involved a LARC method, compared with 69% for the combined oral contraceptive (COC).5

Benefits and efficacy of LARCs

Top-tier LARC methods, implants and IUDs, share the characteristic of requiring a single act for long-term use. According to the World Health Organization’s evidence-based Medical Eligibility Criteria (MEC) for contraceptive use, LARC methods have few contraindications, and the majority of women are eligible for implants and IUDs.9

Despite potential higher up-front costs and the need for clinic visits for insertion and removal, implants and IUDs share the following advantages over other methods:

• Are independent from coitus and user motivation and adherence
• Have the highest effectiveness and continuation rates4
• Do not require frequent visits for resupply
• Require no ongoing costs
• Are highly cost-effective 1
• Are reversible, with a rapid return to fertility after removal10-12

LARC methods may have additional benefits beyond their fit and forget accessibility, top tier efficacy and high continuation rates. Use of the etonogestrel implant is associated with reductions in dysmenorrhea and pelvic pain13, 14 and an increase in haemoglobin levels, most likely due to high levels of infrequent bleeding or amenorrhoea.15 Use of the LNG-IUD is associated with a 71-96% reduction of menstrual bleeding16, an increase in haemoglobin17 and a reduction of menstrual pain18 including in those with endometriosis19-21. The copper IUD has the advantage of having no contraindications related to hormone use,22 being immediately effective and being a highly effective method of emergency contraception.23 A high rate of amenorrhoea24 with use of DMPA (compared to progestogen implants) may be seen as desirable and its use is totally undetectable by others.
Misconceptions

There are many misconceptions about LARC use that are addressed by reviewing the evidence:

- Other than a small increase after the insertion procedure, IUDs do not increase the risk of pelvic infection and can be used by young women, including teenagers.25-27
- IUDs do not increase infertility.26
- IUDs can be inserted without technical difficulty in most nulliparous women; including young women and nulliparity is not a contraindication to their use.28, 29
- Immediate post-partum, including post-caesarean, and post-abortion insertion of IUDs is safe and effective.30-32
- There is no evidence linking weight gain to the use of implants.33, 34
- While frequent and/or prolonged bleeding occurs in a proportion of implant users and is a common reason for discontinuation, more women experience infrequent or no bleeding and continuation rates at one year are high.33
- While DMPA injections are not a first line method for those under 18 years due to potential concerns about long term bone density, they can be safely used when other methods are not suitable.35, 36
- Consideration of the risk of established pregnancy or possible conception is essential before commencing long acting methods but there is no additional benefit to timing insertion with menstruation.37, 38
- There is no evidence supporting previously held views that IUD insertion during menses makes the insertion procedure less difficult for the woman or inserter nor that subsequent bleeding patterns are improved by insertion during menses.39
- Young people, deemed to be competent to consent to medical treatment, can consent to insertion and removal of LARCs without legal ramifications.40

Current evidence demonstrates the safety of modern IUDs. A retrospective analysis of case record data from more than 90,000 women who had an IUD inserted showed that less than 1% overall experienced a significant complication and the continuation rate at 12 months was greater than 85%. There was no difference in the rate of complication between teenagers and women aged 25-44 years.41 The CHOICE study, a three year prospective cohort, which provided free contraception to nearly 10,000 American women at risk of unplanned pregnancy, showed an over 80% and 75% continuation rate at 12 months for the LNG and copper IUD respectively, with around 75% of users being very satisfied or somewhat satisfied with their method.42

LARCs and unintended pregnancy

Because increased use has the potential to reduce unintended pregnancy and abortion rates, LARC methods can be offered as a first-line contraceptive option and encouraged for all Australian women, particularly young women who are highly fertile and have high rates of unintended pregnancy and abortion.43

Unintended pregnancy and abortion among young Australian women is a significant public health issue. South Australia and Western Australia surveillance data indicates that the proportion of abortions (induced abortion as a proportion of induced abortions and live births) is 20-22% across all age groups. The abortion rate is highest in those 20-24 years of age, at 21.4 per 1000 women. The proportion of total pregnancies ending in abortion is highest in younger age groups with more than half of teenage pregnancies ending in abortion. In South Australia in 2010 and Western Australia in 2009 respectively the percentage of pregnancies ending in abortion was 87%/79% for those under 15 years, 52%/52% for 15-19 year olds and 33%/35% for 20-24 year olds.8

The CHOICE study showed that 67% of women who were aware of LARC methods chose to use them and their subsequent risk of unintended pregnancy within three years was reduced more than 20-fold compared with those who used other methods.4 An Australian prospective study confirms international studies that have consistently shown that teenagers who have given birth and choose an implant have a lower rate of rapid repeat pregnancy at one year and two years4, 47 and higher continuation rates compared to those who choose COC. Similar results have been shown for DMPA with a reduction of repeat pregnancies and a higher continuation rate compared to the COC.48 Women who use a LARC method after an induced abortion are also less likely to have a repeat abortion.49-51

Barriers to LARC use

Barriers to the use of LARC methods include:

- a lack of familiarity with, or misperceptions about, the methods
- high upfront costs
- lack of access to insertion services
- health care providers’ concerns about the safety of IUD use, especially in nulliparous younger women and teenagers
- patient barriers, including a general lack of awareness of LARC methods and information about their safety and effectiveness

Cost may present a specific barrier to LARC method use for some Australian women. While implants and LNG IUDs are PBS subsidised, insertion procedure fees may be high and up-front out of pocket costs may be unaffordable unless available through public health services or at discounted rates. The uptake of initially less...
expensive methods such as oral contraceptives is higher in Australia.\textsuperscript{5,6} However, both the implant and IUDs are highly cost-effective even with relatively short-term (12-24 months) use.\textsuperscript{27-30}

Although health care providers generally have favourable attitudes about IUDs, they may use overly restrictive criteria to identify candidates.\textsuperscript{52} An Australian survey of women presenting for IUD insertion found that 18% had been told by either a health professional or a friend or family member (or both) that it was not a suitable method for them, despite these women meeting appropriate MEC.\textsuperscript{60} A global review of the opinions of health care practitioners on insertion of IUDs in nulliparous women showed a low level of certainty around the correct MEC, and a high level of concern about increased risks of pelvic inflammatory disease and infertility.\textsuperscript{39} While the review of barriers preventing more widespread use of IUDs among nulliparous women identified health care provider, health system and user barriers, the beliefs of health care providers were found to have the most profound effect on uptake of these methods.\textsuperscript{61}

Lack of training and experience with IUDs and implants may contribute to health provider reluctance to recommend these methods. Implant insertion is well within the scope of all general practitioners (GPs) and increasing numbers of nurses are now being trained in their insertion.

In Australia, IUDs are inserted by gynaecologists, some GPs, specialised clinics (including family planning clinics and some other reproductive and sexual health services) and small numbers of nurse practitioners and women’s health nurses. Although medical indemnity provider requirements vary, most insurers do not require additional premiums for GPs inserting IUDs. GPs are responsible for ensuring that they are appropriately trained and maintain their clinical competence. Where insertion difficulties are predicted or encountered, referral to specialists or clinics with facilities for sedation or general anaesthesia is advised.

**Recommendations**

To reduce the rate of unintended pregnancy and abortion, particularly amongst young women, a comprehensive approach is needed including actions that increase the uptake of top tier long-acting reversible contraceptive methods in Australia. The following recommendations provide a framework for action.

**Health system:**

- Development of a systematic national approach to increase LARC use in Australia, particularly among young women where uptake is currently low. This should include an assessment of cost effectiveness, taking into account the reduction in the rates of unintended pregnancy and abortion
- Development of documented local referral pathways for women of all ages and in all areas to access LARCs, particularly IUDs
- The role of nursing professionals in implant and IUD insertion be supported
- Incentives to improve GP participation in the provision of LARCs—including higher MBS rebates for implant and IUD insertion
- Subsidisation of the cost of Copper IUDs, in line with the PBS for LNG IUDs and implants
- Health promotion strategies to raise awareness of benefits and safety of LARCs
- Medicare and private insurance rebate for IUD insertion under sedation and general anaesthesia

**Research:**

- Systematic data collection of abortion and contraception usage at a population level in Australia to evaluate and monitor the cost effectiveness of increasing LARC use
- Research into the barriers and enablers of LARC use in the Australian context to inform programs for health professional and community education

**Health service providers:**

- Family Planning providers (FPPs), GPs, obstetricians and gynaecologists (O&Gs) and other health providers to routinely include a discussion of the benefits of LARCs with all women requiring contraception including those commencing or renewing pill or vaginal ring scripts
- FPPs, GPs, O&Gs and other health providers to provide the option for immediate initiation of IUDs and implants where appropriate
- GPs, obstetricians and midwives to include discussion of the benefits of LARCs with pregnant and post-partum women and, where appropriate, provide the option of immediate post-partum initiation of a suitable LARC
- Abortion providers to include discussion of the benefits of LARCs with women presenting for abortion and provide services for immediate initiation of LARC methods where appropriate

**Health Professional and Community education:**

- Health professional training and continuing education programs to address common misconceptions and include contemporary evidence on the safety and benefits of LARCs, particularly for young women including teenagers
- GPs who have the required level of skill and experience to have access to supervised clinical training options in the insertion of IUDs including a competency assessment

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Declaration of Interest: Member organisations of SH&FPA are paid fees to conduct training for GPs in implant and IUD insertion, from MSD and Bayer respectively.
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