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Immediate Postpartum Provision of Highly Effective Reversible Contraception

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Unintended pregnancies are associated with a higher risk of adverse maternal and neonatal outcomes, particularly when they occur within a short time interval from a previous birth.¹ Early access to highly effective reversible intrauterine contraceptives (IUCs) and contraceptive implants in the postpartum period has been demonstrated to help women prevent unintended and rapid-repeat pregnancies.² We discuss several compelling reasons for immediate postpartum provision of such methods to women who desire them.

IUCs (both copper intrauterine devices and levonorgestrel-releasing intrauterine systems) and implants are in the highest tier of contraceptive effectiveness³ because they require no active adherence on the part of the user. Provision of these methods in hospital following delivery is particularly attractive because it is convenient for women who may be highly motivated to prevent another pregnancy and logistically optimal in that health professionals trained in method placement could be readily available. Despite previous concerns, immediate postpartum placement of IUCs and implants is also extremely safe.⁴ There is no increased risk of pain, bleeding, infection or uterine perforation for IUCs placed immediately (within ten minutes of placental delivery) compared to delayed placement (weeks later).

The safety of immediate post-delivery placement of IUCs and implants is reflected in the World Health Organization *Medical Eligibility Criteria for Contraceptive Use (WHO MEC)*, which provides evidence-based guidance regarding medical eligibility for specific contraceptive methods. This guidance is used by specialists in sexual and reproductive health worldwide to ensure that women are not exposed to inappropriate risk while at the same time are not denied access to methods that are medically appropriate. It has been

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adapted for use in several countries including the United Kingdom (UK) and the United States (US). The 2009 *WHO MEC* supports immediate postpartum placement of levonorgestrel-releasing implants and IUCs for non-breastfeeding women and copper IUCs for all women. Some country-specific adaptations of the *WHO MEC* differ regarding their synthesis of the evidence on levonorgestrel and breastfeeding. The 2009 *UK MEC* and the 2010 *US MEC* both support immediate postpartum placement of implants for all women and the *US MEC* also extends this guidance to levonorgestrel-releasing IUCs.

Reported expulsion rates for postpartum IUCs vary widely, partly due to differences in follow-up intervals and quality of evidence across studies. For copper-releasing IUCs, immediate postpartum placement is consistently associated with higher expulsion rates than for delayed placement (1–36.9% versus ~3.0%).⁵ Additionally, the expulsion rate following immediate placement after vaginal delivery is consistently higher than that following immediate placement after Caesarean delivery (7.5–22.6% versus 0–13.9%).⁵ However, these risks seem tolerable given the alternative of no immediate postpartum devices being placed at all. Many women do not obtain contraception before their six-to-eight week postpartum visit, yet up to 41% will attempt vaginal intercourse within six weeks of delivery.⁶ Among women who are not exclusively breastfeeding, ovulation may already have returned by that time or will return soon thereafter.⁷ Offering all women the opportunity to choose an IUC or implant prior to hospital discharge (or at home, in the case of home births) would allow them to circumvent this problem.⁸

Women who choose immediate postpartum IUCs and implants have high levels of method satisfaction: US studies have shown high continuation rates at six and 12 months postpartum (84.3–87.6% and 76.3% respectively for IUCs, and 96.9% and 86.3% for implants).³ Moreover, for immediate postpartum implant placement, a reduction in the likelihood of repeat pregnancy within 12 months has been demonstrated (2.6% versus 18.6% among women using other methods).³ For immediate postpartum IUC placement, a decision-analysis model based upon data from the US estimated that 88 unintended pregnancies per 1,000 women would be prevented over two years.⁹

In addition to improving women's health by preventing unintended pregnancies, immediate postpartum provision of IUCs and implants would also save money. The decision-analysis model of immediate postpartum IUC placement mentioned above found two-year medical care cost-savings of US\$282,540 per 1,000 women who desired a postpartum IUC.⁹ A US cost-effectiveness analysis of implants placed prior to hospital discharge following delivery found medical care cost-savings of US\$550,000, US\$2.5 million, and US\$4.5 million per 1,000 women at 12, 24 and 36 months postpartum respectively.¹⁰ While these studies focus on medical care cost savings alone, there would be further social cost savings through preventing unintended births.

In many countries, implementation of immediate post-delivery IUC and implant services would not be without challenges. An initial monetary out-lay would be needed to train the relevant healthcare professionals in contraceptive counseling and device placement. Significant investments would be required in terms of time, equipment and devices. Yet in the longer-term, these costs would likely be more than offset by a drop in the medical and

social care cost of unintended pregnancies and births. In addition, reducing the need for contraceptive provision appointments in the later postpartum period would also lead to time and cost savings for both women and healthcare systems. Such benefits to women could be particularly great in settings where healthcare services are not readily accessible due to distance or other logistical barriers.

In light of the Millennium Development goal of reducing the worldwide maternal mortality ratio by three-quarters by 2015¹¹ and the resolution of the Parliamentary Assembly of the Council of Europe to reduce unintended pregnancy among EU member states,¹² policies promoting widespread availability of immediate postpartum IUCs and implants represent an important step towards improving global women's reproductive health.

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