



RESEARCH

INFORMATION

Cost Effectiveness of Immediate Versus Delayed Insertion of Intrauterine Contraception After Childbirth in the UK



AIMS

This study aimed to assess whether providing an intrauterine contraceptive device (IUD or 'coil') immediately after childbirth in a maternity hospital offers value for money for NHS Scotland. This was compared to the current alternative of receiving an IUD at a GP practice or sexual health clinic a few weeks after the baby is born. This supports the Scottish Government policy priority 'to support timely access to the full range of contraception options after childbirth for those who request this' (*Women's Health Plan: Phase Two 2026-2029*).



KEY FINDINGS

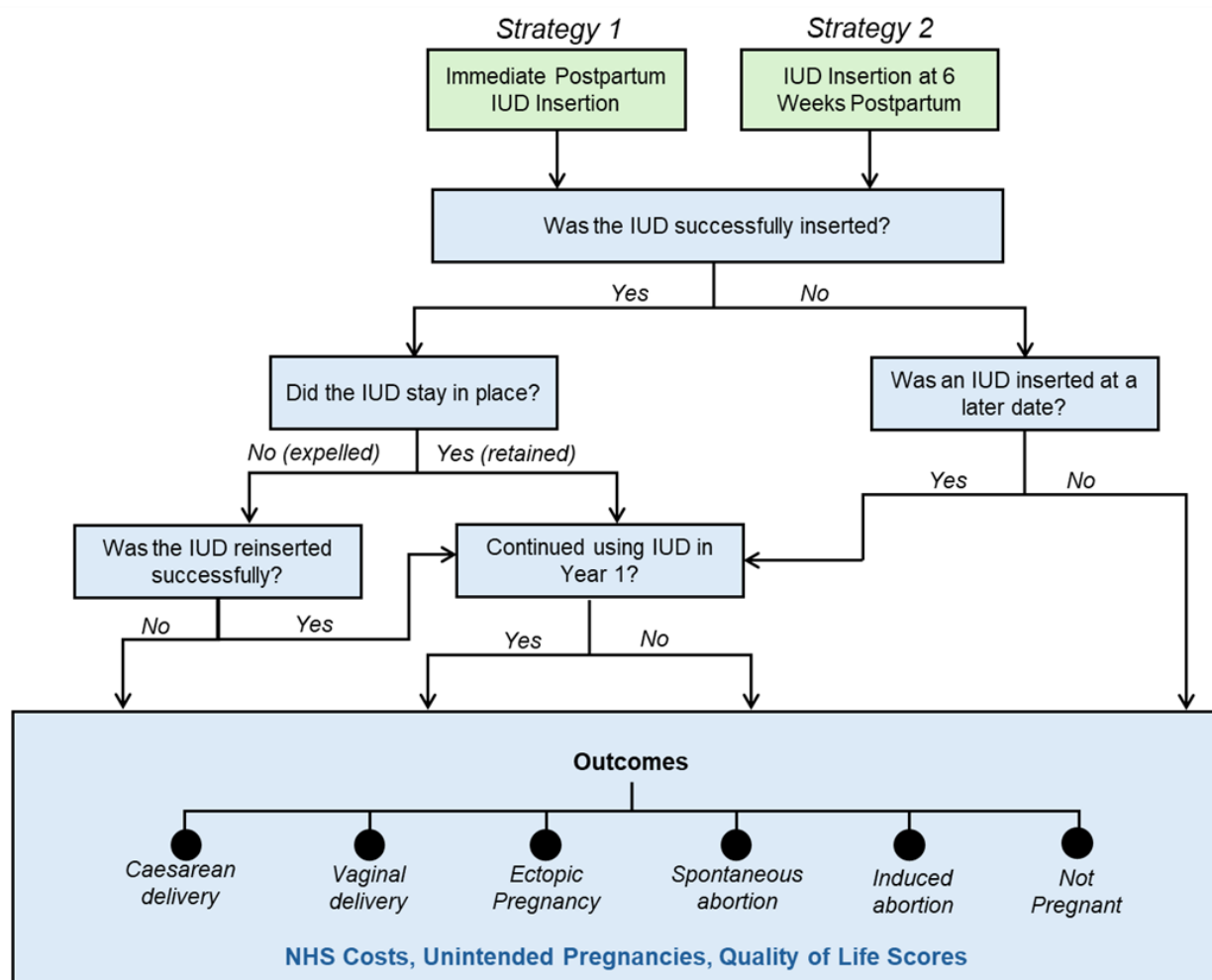
- Immediate postpartum IUD insertion (PPIUD) saves money, prevents more unintended pregnancies and increases health-related quality of life compared to delayed insertion
- Immediate PPIUD was cost-effective for both caesarean and vaginal births, despite the higher IUD expulsion rates (when the IUD falls out after insertion) compared to delayed insertion
- 'Start-up' costs such as staff training are often seen as a barrier to PPIUD implementation. However, our findings show the benefits of immediate PPIUD far outweigh these upfront costs
- Patient & public engagement work conducted within the study suggests that women value the increased convenience of immediate PPIUD, compared to the challenges of attending follow-up appointments while caring for a newborn



WHAT DID THE STUDY INVOLVE?

Providing highly effective contraception (such as IUDs) can save the NHS money by preventing unintended pregnancies. However, there is limited UK evidence about the value for money of providing IUDs immediately postpartum. This study assessed whether offering IUD insertion immediately after childbirth provides good value for money for NHS Scotland compared with insertion at a later appointment. We developed an economic model (**below**) to estimate NHS costs, unintended pregnancies and women's quality of life over 1 year. The model accounted for insertion success, expulsion, reinsertion, discontinuation, and unintended (unplanned or mistimed) pregnancies. It also included the staff training and insertion costs required to deliver the service, based on experience from NHS Lothian.

The study used NHS Scotland data, published research and advice from a clinical expert advisory group to design the model and interpret the results. We measured value for money using the cost per unintended pregnancy avoided and the cost per quality-adjusted life year (QALY; a measure combining length and quality of life). Patient and public engagement also explored women's views and experiences of immediate postpartum IUD insertion.





WHAT WERE THE RESULTS AND WHAT DO THEY MEAN?

- Our findings show that immediate PPIUD is **less costly and more effective** than delayed PPIUD for vaginal and caesarean births. Compared to delayed IUD insertion, immediate PPIUD saves £100.79 per vaginal birth and £133.13 per caesarean birth, while preventing over 96% of unintended pregnancies (see table below).

Timing of IUD provision	Expected Cost	Expected QALYs*	Unintended Pregnancies Avoided
Immediate PPIUD (vaginal)	£233.98	0.90	96.21%
Immediate PPIUD (caesarean)	£201.64	0.90	96.39%
Delayed PPIUD	£334.77	0.89	89.84%

*QALYs combine length and quality of life into a single number between 0 (death) and 1 (perfect health). One QALY represents 1 year in full health.

- Immediate PPIUD would still be cost-effective unless:
 - Over 53% of immediate IUDs are expelled, and fewer than 62% are reinserted after expulsion, **or**
 - Over 98% of women attend a later appointment for delayed IUD insertion, **or**
 - Over 83% stop using the IUD within one year, **or**
 - Training maternity staff to carry out PPIUD costs more than £335 per insertion
- The cost-effectiveness results would only change under very unlikely scenarios. Even for very small health boards where training costs may be higher (up to £86 for small, rural health boards), immediate PPIUD is still very likely to be cost-effective.



WHAT IMPACT COULD THE FINDINGS HAVE?

- Patients:** Our patient and public involvement work showed that women value the option of immediate PPIUD insertion after childbirth. Expanding this service across NHS Scotland could reduce the need for follow-up appointments, which women report can be difficult to attend in the weeks after birth. Starting a chosen contraceptive method earlier also reduces the risk of unintended pregnancy in the postpartum period.
- Policy:** Findings provide clear evidence that immediate PPIUD offers cost savings for NHS Scotland. This evidence can support the delivery of cost-effective postnatal services, reducing financial pressures on NHS maternity services. This can inform national and local policy decisions, including decisions about funding, service planning and workforce training.
- Practice:** These findings will help NHS managers and clinical teams to make informed decisions about introducing or expanding immediate PPIUD services within maternity care. Although initial training and setup costs are often seen as a barrier, this study shows that these costs are outweighed by savings to the health service and improved outcomes for patients.



HOW WILL THE OUTCOMES BE DISSEMINATED?

A summary of findings has been provided to patients who participated in the project, and their views sought on the dissemination plans. We are preparing two separate manuscripts for submission to scientific journals in women's health by the end of 2026. Once published, we will also release findings publicly through media outlets. Findings will be disseminated to clinicians in all 14 NHS Scotland Health Boards through regional representatives within the Scottish Postpartum Contraception Network. It will also be shared with Scottish Committees of the Royal College of Midwives, Royal College of Obstetricians & Gynaecologists and College of Sexual & Reproductive Health. We are also hosting a national online stakeholder event in Autumn 2026, including colleagues from relevant Scottish Government policy teams, clinicians, academics and patient experts. To expand this service within the NHS, future research could explore others potential barriers to PPIUD implementation, for example, innovations to simplify existing insertion techniques which may further increase acceptability.



CONCLUSION

This study provides a robust cost-effectiveness analysis of immediate PPIUD insertion in NHS Scotland, using Scottish data and informed by input from patients and professionals in Scotland. It adds to the existing evidence base by including important aspects of service delivery such as staff training costs, as well as extensive public and professional engagement. We found that immediate PPIUD reduces healthcare costs by preventing more unintended pregnancies than delayed IUD insertion. In addition to cost savings, the service also benefits patients through improved convenience and access to effective contraception in the postpartum period.



RESEARCH TEAM & CONTACT



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