The Regulation and Quality Improvement Authority

Development and implementation of a postpartum contraception service in the Belfast and South Eastern Health and Social Care Trusts

Executive Summary

Background

One third of births in the UK are estimated to be unplanned at the time of conception. The postpartum period, in particular, is a high-risk time for unintended pregnancy[1]. A further pregnancy within 12 months of birth is associated with an increased risk of both maternal and neonatal adverse outcomes, including preterm birth, intrauterine growth restriction, maternal and neonatal morbidity[2]. Guidance from the Royal College of Obstetricians and Gynaecologists (RCOG) and the Faculty of Sexual and Reproductive Health (FSRH) states that all women should be counselled about the benefits of Long Acting Reversible Contraception (LARC) in the antenatal period and postpartum contraception should be started as soon as possible after birth, ideally prior to discharge[3,4]. The need for postpartum contraception to be a key part of maternity pathways was strongly reiterated in the RCOG 2019 Better for Women Strategy, which states that "Health and Social Care Northern Ireland must embed immediate post-pregnancy contraception maternity pathways and support for all women"[5]. Despite best practice guidance, and a body of evidence demonstrating its cost-effectiveness[6, 7], postpartum contraception is not routinely offered as part of maternity care in Northern Ireland.

Aim

The aim of this QI project was to develop and implement a postpartum contraception service within the Royal Jubilee and Ulster Maternity Hospitals within the Belfast and South Eastern Health and Social Care (HSC) Trusts.

Methodology

A clear vision, aim and strategy for addressing a significant unmet need for postpartum contraception was developed, articulated and shared by the Project Team. It specifically focused on the provision of LARC.

The initial stage of service design centred on the development of care pathways for intrauterine contraceptive device insertion at the time of elective caesarean section, across both the Belfast and South Eastern HSC Trusts. Care pathways were developed, tested and implemented using a 'model for improvement' approach, utilising PDSA methodology. Care pathways were developed specific to each maternity unit. Implementation of the pathways required staff to be upskilled in antenatal counselling and postnatal administration of contraception. It also necessitated the development of patient information leaflets, consent forms, standard operating procedures and local guidance and protocols for follow-up with specific attention to the management of lost threads.

Results

Baseline data on short inter-pregnancy interval rates, gathered in both Trusts, demonstrated a significant unmet need for postpartum contraception. Antenatal and postnatal surveys of women attending maternity services in each Trust indicated a strong

preference for counselling and provision of postpartum contraception.

In both Trusts, antenatal counselling and consent for contraceptive device at caesarean section is undertaken by obstetric staff. This is supported by the provision of patient information leaflets and a consent proforma. A preference for contraceptive device insertion at the time of caesarean section is communicated via the usual mechanisms for booking elective caesarean sections. Obstetric theatre staff have assumed responsibility for ordering contraceptive devices to ensure sufficient availability to support demand.

In the Belfast HSC Trust, the contraceptive device at caesarean section service commenced in July 2020, initially as a pilot service targeting high-risk groups and then scaling up to offer to all women undergoing elective caesarean section. The uptake rate is encouraging and presently averages 17% (significantly greater than the 10% target). With the caveat that the DNA rate is high (approximately 40%), of those who opted for contraceptive device at caesarean section and have attended for review, the expulsion rate is exceptionally low and patient satisfaction appears to be extremely high.

Obstetric staff have also been upskilled to insert intrauterine contraceptive devices following vaginal delivery. E-learning followed by simulation training using Mama-u models and supervised live insertions formed the basis for upskilling. Contraceptive device insertions following vaginal delivery commenced in the Belfast HSC Trust in August 2021. In the initial stages, this is being offered to women with high-risk medical conditions and social vulnerability factors with the intention to scale-up and offer to all eligible women.

In the South Eastern HSC Trust, the contraceptive device at caesarean section service was implemented on the 3rd September 2021. This was supported by the development of a local guideline 'Intrauterine Contraception (PPIUC) insertion at Caesarean Section' which sets out the service arrangements and governance, including a standard operating procedure.

Conclusion

The project and its early successes illustrate how an identified unmet need can be quickly, albeit partially, addressed using only staff enthusiasm, the application of QI methodology and relatively modest funding. Capitalising on success, maintaining momentum and embedding services will be key to sustainability. Scaling up to provide a full contraception service is likely to be challenging given the current midwifery workforce pressures. Nonetheless, it is important that efforts continue and that learning is shared regionally, alongside engagement of policy-makers and commissioners about the clear need, demonstrable benefits and the quick and easy, yet effective nature of the service.

References

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Background

One third of births in the UK are estimated to be unplanned at the time of conception[1]. This rate is likely to be higher in Northern Ireland, where community sexual health services are less well established than in the rest of the UK and where, until recently, there had been longstanding legislation restricting access to abortion[2]. The postpartum period, in particular, is a high-risk time for unintended pregnancy. Ovulation can occur as early as three weeks in non-breastfeeding women and as many as 50% of women are estimated to resume sexual activity by six weeks[3,4]. Attending primary care for contraceptive advice and treatment prior to resumption of sexual activity can be difficult for women in the postpartum period, as they may need to attend several appointments, which presents a significant barrier to contraceptive uptake. Whilst lactational amenorrhoea can be used as an effective contraception method up until six months postpartum, exclusive breastfeeding rates are low in Northern Ireland (14.1% at six months) and are only marginally better in the rest of the UK[5].

A further pregnancy within 12 months of birth is associated with an increased risk of both maternal and neonatal adverse outcomes including preterm birth, intrauterine growth restriction, maternal and neonatal morbidity[6]. If a pregnancy occurs in the 12 months following a caesarean section there is also an increased risk of uterine rupture and associated morbidity[7]. For the health service, the cost implications of unintended pregnancy are estimated to be in the region of one billion pounds per year[8]. From a societal perspective, a short inter-pregnancy interval can be the cause of significant psychological stress and financial burden for families, particularly for women with pre-existing health needs or from a low socio-economic background. Inadequate inter-pregnancy spacing can prevent women from fulfilling their potential both in their education and in the workplace, further compounding socio-economic issues.

It is important to note that there are patient groups who have a significantly greater need for improved access to Long Acting Reversible Contraception (LARC). These include women with high-risk medical conditions for whom pregnancy presents an unacceptable risk to their health, women with a significant mental health history and those who are considered ‘vulnerable’ due to social issues which may include poverty, domestic abuse and addiction.

However, the Faculty of Sexual and Reproductive Health (FSRH) recommends that maternity services offer all eligible women, not limited to those with health needs or vulnerability, LARC to be initiated as soon as possible following birth[9]. Similarly RCOG Best Practice guidance states that women should be counselled about the benefits of LARC in the antenatal period and postpartum contraception should be started as soon as possible after birth, ideally prior to discharge[10]. This can either be in the form of an implant which can be inserted any time after birth or an intrauterine device (IUD) fitted immediately after expulsion of the placenta at caesarean section or within 48 hours of delivery[10]. The need for postpartum contraception to be a key part of maternity pathways was strongly reiterated in the RCOG 2019 Better for Women Strategy, which states that “Health and Social Care Northern Ireland must embed immediate post-pregnancy contraception maternity pathways and support for all women”. None of these best practice

recommendations had previously been implemented at the Royal Jubilee Maternity Service or the Ulster Hospital. The aim of this QI project is to develop and implement a postpartum contraception service within the Royal Jubilee and Ulster Maternity Hospitals within the Belfast and South Eastern HSC Trusts. Due to both the clinical efficacy and cost effectiveness of LARC methods (intra-uterine devices and sub-dermal implants), we specifically focused on the provision of LARC.

Research and policy context

Evidence-base for Implementation

There is a large body of evidence supporting the safety and efficacy of postpartum contraception[11,12,13,14]. Previously the evidence for service implementation had been lacking. However, a significant amount of research into implementation in this area has now been undertaken in NHS Lothian, where a comprehensive framework for implementation of a postpartum contraception service has been developed[15,16]. There is also robust international evidence from the International Federation of Gynacology and Obstetrics (FIGO) which researched implementation across six South East Asian Countries[17,18]. These studies provide a strong evidence-base for implementation, demonstrating both safety and effectiveness of the service, and have been useful in demonstrating feasibility in terms of implementation utilising existing resources. Encouragingly, evidence from NHS Lothian, and internationally from FIGO, has shown that implementation of a postpartum contraception service is not just effective but is also cost-effective[16,17]. Research from NHS Lothian has shown that the traditional model of provision of postpartum contraception within General Practice leads to unnecessary delay with significant barriers to access and high DNA rates[15]. Providing contraception prior to the woman leaving hospital with her baby allows for timely provision and has been demonstrated to be both acceptable, and preferable, to women[15]. This model of contraception provision is patient-centred and better able to meet the needs of new parents.

COVID-19 pandemic

The unforeseen challenges presented by the COVID-19 pandemic and resultant policy decisions, impacted on the ability to undertake service development within our healthcare settings. For example, face-to-face training events were no longer permitted and travel restrictions impacted on the ability to visit other units. However, importantly, the pandemic itself served to highlight further the urgent need to provide contraception within maternity services. Lockdown measures, a scaling back of face-to-face GP appointments and redeployment of staff from routine Sexual and Reproductive Health services meant that LARC provision was effectively suspended within the community setting. In April 2020[19,] RCOG, FSRH and Royal College of Midwives (RCM), in recognition of an acute and pressing need, jointly launched recommendations for maternity services to provide contraception prior to women going home with their baby.

Policy context specific to Northern Ireland

Abortion in NI was decriminalised on the 22nd October 2019. Since April 2020 women in NI have been able to access abortion services locally; albeit a full abortion service remains uncommissioned and at present Early Medical Abortion Services are only available in four out of five HSC Trust areas. Scottish data has shown that a significant proportion of abortions occur within 12 months of birth; 1 in 8 women seeking abortion in Lothian have given birth in the previous 12 months [20]. Data collected from the Belfast HSC Trust Early Medical Abortion Service between April and July 2021 demonstrated that 1 in 6 parous women seeking abortion have given birth within the previous 12 months and 1 in 4 in the previous 18 months.

From a policy perspective, the Northern Ireland (Executive Formation) Act 2019 mandates that the Secretary of State for NI implements the recommendations made by the United Nations Committee for the Elimination of Discrimination Against Women (CEDAW) Inquiry[21]. A key recommendation states that there should be "accessibility and affordability of sexual and reproductive health services and products, including on safe and modern contraception, including oral and emergency, long term or permanent and adopt a protocol to facilitate access at pharmacies, clinics and hospitals"[21]. A postpartum contraception service would increase provision of LARC amongst Belfast and South Eastern HSC Trusts patient population and lead to a reduction in the rate of unintended pregnancy and abortion.

The Northern Ireland Abortion and Contraception Task-group (NIACT) acknowledged the need for NI postpartum contraception services in their March 2021 report and has made a recommendation that "there should be increased provision of postpartum contraception within maternity services, including access to LARC following the birth"[22].

Methodology: include interventions & interpretation and strategy for change in this section.

Vision, Aim and Strategy

A clear vision, aim and strategy for addressing a significant unmet need for postpartum contraception was developed, articulated and shared by the Project Team.

Vision

The vision was to develop a service, which would offer all eligible women long acting reversible contraception (intra-uterine devices and sub-dermal implants) within 48 hours of giving birth.

Aim

The aim of the QI prototype was for 10% of women to have a LARC fitted prior to

discharge home from hospital following the birth of their baby.

This would represent a 10% increase from baseline, noting that prior to commencement of the project there was no routine LARC provision.

Strategy

The strategy for developing the service comprised the following principles:

- Staff engagement
- Upskilling staff
- Developing a care pathway
- Developing patient information leaflets
- Raising awareness amongst women
- Scaling up and embedding

Service Development and Implementation

Service development and implementation were undertaken using a QI approach in both Trusts. However, due to the COVID-19 pandemic and changes in the membership of the QI team, service development in the South Eastern HSC Trust was delayed and, at the time of writing, implementation is at an earlier stage.

Support for the project was sought both at senior management level and from front-line staff; baseline data on short inter-pregnancy interval rates served to highlight the significant unmet need for the service. QI Project Teams were established in each Trust. A link was established with NHS Lothian which provided an opportunity to share learning and provided QI Leads with support and resources for implementation.

Regular staff engagement was undertaken and Postpartum Contraception Champions were recruited in order to sustain momentum and enthusiasm. Staff and patient surveys were conducted to understand the level of awareness of and ascertain views on the acceptability and feasibility of a postpartum contraception service. Staff training was implemented to upskill staff to enable delivery of the service. Funding provided by RQIA enabled Learn-pro Postpartum Contraception modules, as well as simulation equipment, to be purchased. PDSA cycles were undertaken to develop Care Pathways, Standard Operating Procedures, Consent Forms and Patient Information Leaflets.

Staff engagement

In the Belfast HSC Trust, engagement commenced in April 2020; obstetric and midwifery staff were consulted about postpartum contraception at Audit meetings and Labour Ward Forums. These provided an opportunity to raise awareness of the service and for discussion of barriers and challenges, in addition to the recruitment of Postpartum Contraception Champions.

New doctors joining RJMS were provided with information regarding the service at induction.

In the South Eastern HSC Trust, stakeholder engagement was undertaken with service and clinical managers, obstetricians and midwifery staff during February 2021. This enabled consultation on the development of a local guideline and care pathway.

Upskilling Staff

Education and Training in post-partum contraception was delivered to obstetricians and midwives by a variety of methods, including training in antenatal counselling, different contraceptive methods and practical training to upskill staff.

Both the Belfast and South Eastern HSC Trusts gained access to Learn-pro Postpartum Contraception Modules. These comprehensive training modules have been completed by obstetricians and midwives within the Belfast HSC Trust; staff within the South Eastern HSC Trust received access to Learn-Pro in December 2021.

An Implant Training Day was to be delivered to obstetric and midwifery staff from both Trusts in April 2020. Unfortunately, this was cancelled due to Trust restrictions on face-to-face training during the COVID-19 pandemic. Instead, staff were encouraged to complete online training and arrange practical sessions with Sexual and Reproductive Health (SRH) implant insertion trainers at a time when a lifting of restrictions made this possible. Training was further complicated by a live patient recall within the Belfast HSC Trust, which required more robust governance around contraceptive device provision, meaning that implant providers had to be FSRH accredited.

Service Leads from NHS Lothian provided an online virtual training session on the 28th January 2021. This was well attended by those leading QI implementation in the Belfast HSC Trust.

A local training session was held at RJMS in August 2021 which provided an opportunity to raise awareness about the service and provided doctors with hands on training in coil insertion following vaginal delivery, utilising Mama-U simulation models.

Development and dissemination of patient and staff surveys

Anonymised electronic surveys were developed and distributed to both antenatal and postnatal women in the Belfast and South Eastern HSC Trusts.

Anonymised electronic surveys were also developed and distributed to all relevant staff groups in the Belfast and South Eastern HSC Trusts.

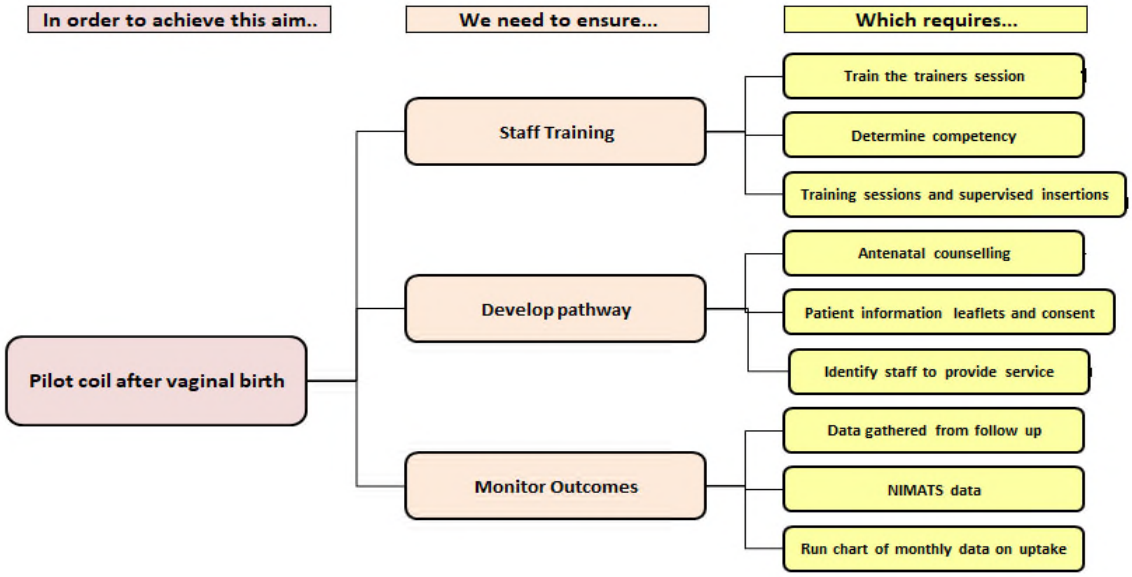
Development and implementation of care pathways

An initial pilot was conducted during 2020. PDSA cycles were undertaken in order to develop, test and implement care pathways for postpartum LARC in the Belfast and South

Eastern HSC Trusts. Phase 1 comprised the development and implementation of a service offering contraceptive device insertion at the time of elective caesarean section. We opted for this as part of the first phase due to the clearly defined patient population, the simplicity of additional skill requirements and the natural opportunity that was presented to introduce counselling alongside existing pathways for counselling and consenting women for caesarean section.

Phase 2 sought to develop and implement a service offering postpartum contraceptive implants and contraceptive device insertion following vaginal delivery.

Figure 1. Driver diagram depicting requirements for a pilot of Phase 2 contraceptive device following vaginal birth service



Development of Patient Information Leaflets

PDSA cycles were undertaken in order to develop and finalise Belfast HSC Trust patient information leaflets. This process benefitted from peer review by NHS Lothian and from the input of a service user. The leaflets were subsequently shared with and adapted by the South Eastern HSC Trust.

Raising awareness amongst women

Raising awareness amongst women can be undertaken at both local and regional levels. Locally, raising awareness amongst staff and training staff to counsel women has ensured that women are now being provided with an opportunity to discuss post-partum contraception with obstetric staff during the antenatal period.

However, more extensive engagement with the populations that use these maternity services has not been undertaken. Plans to engage with maternity forums had been halted due to the COVID-19 pandemic.

Scaling up and embedding

Across both Trusts, the service is being embedded through regular training, staff updates and inclusion in new staff induction programmes.

Analysis & Interpretation

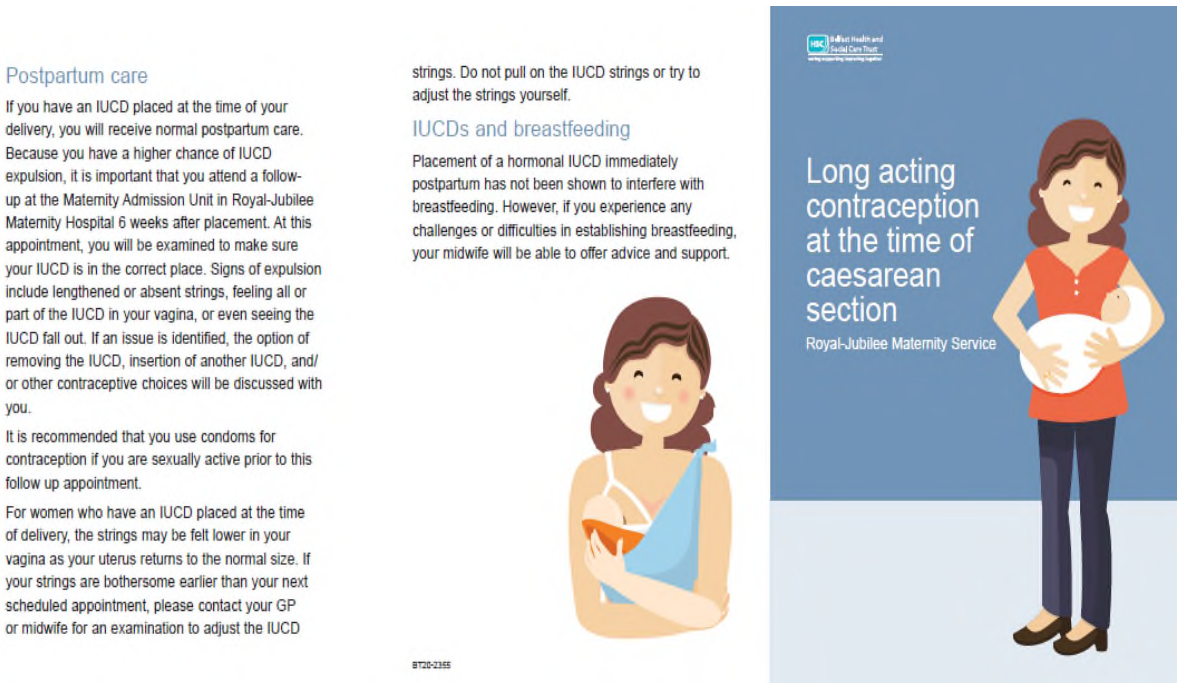
Phase 1

Development and implementation of a service offering contraceptive device insertion at the time of elective caesarean section

The initial stage of service design focused on the development of a care pathway for contraceptive device insertion at the time of elective caesarean section, across both the Belfast and South Eastern HSC Trusts. Care pathways were developed, tested and implemented using a 'model for improvement' approach utilising PDSA methodology.

Care pathways were developed specific to each maternity unit, and therefore they differ across the two HSC Trusts. Implementation of the pathways relied on staff being upskilled in antenatal counselling and postnatal administration of contraception, the development of patient information leaflets, consent forms, standard operating procedures and local guidance and protocols for follow-up with specific attention to the management of lost threads.

Figure 1. Patient Information Leaflets in Belfast HSC Trust



Postpartum care

If you have an IUCD placed at the time of your delivery, you will receive normal postpartum care. Because you have a higher chance of IUCD expulsion, it is important that you attend a follow-up at the Maternity Admission Unit in Royal-Jubilee Maternity Hospital 6 weeks after placement. At this appointment, you will be examined to make sure your IUCD is in the correct place. Signs of expulsion include lengthened or absent strings, feeling all or part of the IUCD in your vagina, or even seeing the IUCD fall out. If an issue is identified, the option of removing the IUCD, insertion of another IUCD, and/or other contraceptive choices will be discussed with you.

It is recommended that you use condoms for contraception if you are sexually active prior to this follow up appointment.

For women who have an IUCD placed at the time of delivery, the strings may be felt lower in your vagina as your uterus returns to the normal size. If your strings are bothersome earlier than your next scheduled appointment, please contact your GP or midwife for an examination to adjust the IUCD

strings. Do not pull on the IUCD strings or try to adjust the strings yourself.

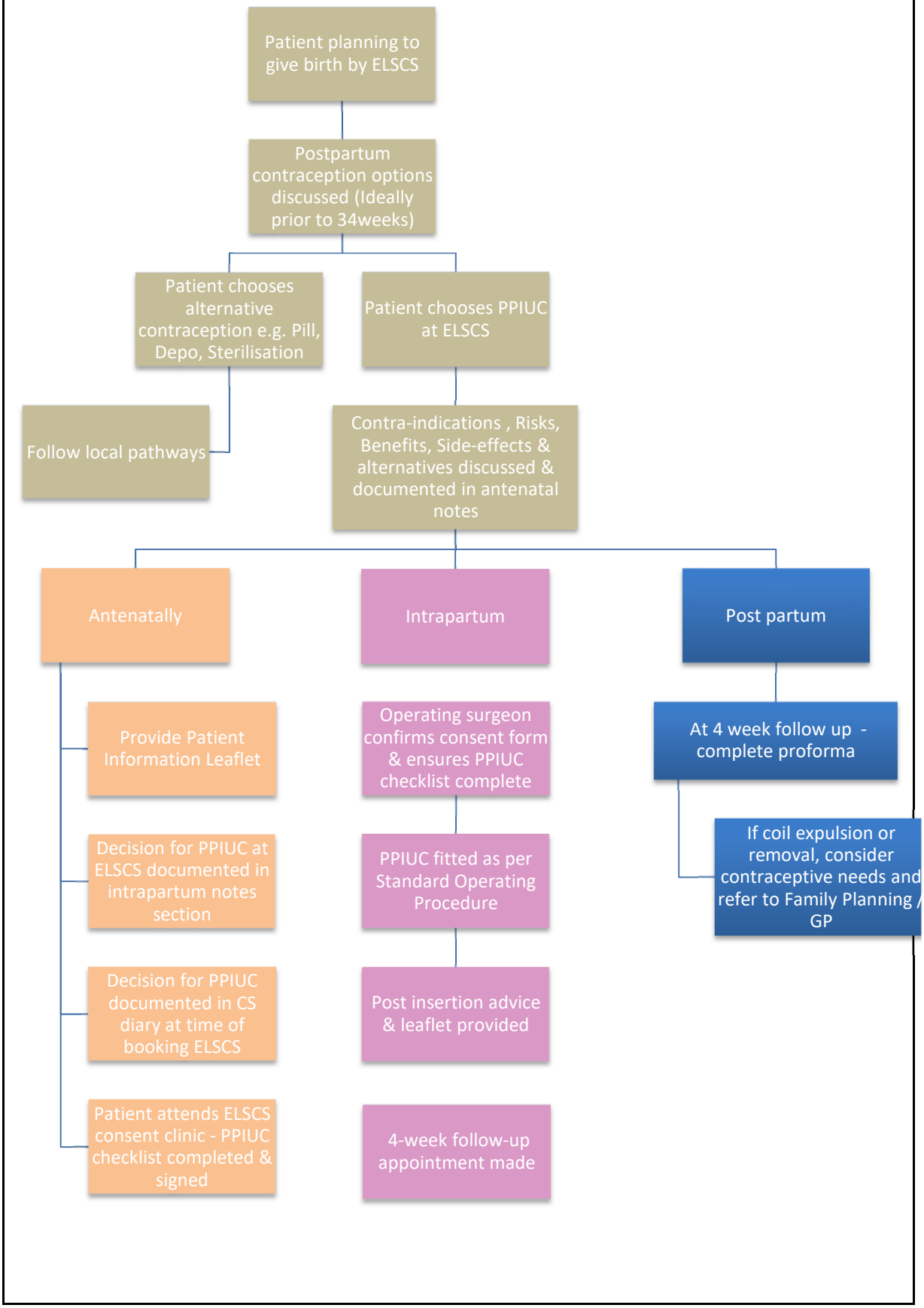
IUCDs and breastfeeding

Placement of a hormonal IUCD immediately postpartum has not been shown to interfere with breastfeeding. However, if you experience any challenges or difficulties in establishing breastfeeding, your midwife will be able to offer advice and support.

Long acting contraception at the time of caesarean section

Royal-Jubilee Maternity Service

Figure 2. Care Pathway in South Eastern HSC Trust



Implementation of contraceptive device at time of caesarean section

In both HSC Trusts, antenatal counselling and consent for contraceptive device at caesarean section is now undertaken by obstetric staff. This has been incorporated into the usual counselling and consent pathways for caesarean section and is supported by the provision of patient information leaflets and a consent proforma. A preference for contraceptive device insertion at the time of caesarean section is communicated via usual mechanisms for booking elective caesarean sections. Obstetric theatre staff have assumed responsibility for ordering contraceptive devices to ensure sufficient availability to support demand.

In the Belfast HSC Trust, the contraceptive device at caesarean section service commenced in July 2020, initially as a pilot service targeting high-risk groups and then scaling up to offer a service to all women undergoing elective caesarean section.

Intrauterine contraceptive device insertion requires a follow up appointment at 4 – 6 weeks to check for expulsion. Women were offered appointments at the Belfast HSC Trust maternity assessment unit, known as 'maternity admissions'.

In the South Eastern HSC Trust, the contraceptive device at caesarean section service was implemented on the 3rd September 2021. This was supported by the development of a local guideline 'Intrauterine Contraception (PPIUC) insertion at Caesarean Section' which sets out the service arrangements and governance, including a standard operating procedure.

Follow-up arrangements, which were agreed following stakeholder consultation, comprised two 15-minute slots per week within existing maternity outpatient services. Arrangements were put in place for data collection at follow-up, through the use of a data proforma.

Progestogen only pills

Although the aim of this QI prototype was to offer LARC provision, the Belfast HSC Trust deemed it important to offer an alternative form of contraception for those women not able to, or not wishing to avail of LARC. This service was provided by way of counselling, supplemented by written patient information given on the postnatal ward and dispensing of three months' supply of progestogen only pills. Repeat prescriptions could subsequently be obtained through local Sexual and Reproductive Health Services or Primary Care.

Phase 2

Scaling up to provide a full post-partum contraception service

Preparatory work for phase 2 has been completed in the Belfast HSC Trust. Obstetric staff have been upskilled to insert contraceptive devices following vaginal delivery. E-learning followed by simulation training using Mama-u models and supervised live insertions have formed the basis for upskilling.

Contraceptive device insertions following vaginal delivery commenced in the Belfast HSC Trust in August 2021. In the initial stages, this was offered to women with high-risk medical

conditions and social vulnerability factors, with the intention to scale-up and offer to all eligible women. Stickers have been developed, to be placed on the front cover of maternity notes, in order to facilitate identification of women wishing to have a contraceptive device inserted following vaginal birth, or emergency caesarean section.

Figure 3. Sticker to facilitate identification of women wishing to have a contraceptive device inserted at time of birth.

Two obstetricians in the Belfast HSC Trust agreed to be upskilled to provide contraceptive implants. A recent live patient recall within the Trust has meant that FSRH accreditation is required.

Due to aforementioned delays, the South-Eastern HSC Trust planned to commence preparatory work for Phase 2 in February 2022, once the pilot for Phase 1 was complete.

Results

Baseline data

Prior to implementation, baseline data regarding short inter-pregnancy interval rates, staff views, and the views and experiences of women were gathered and analysed.

Short inter-pregnancy interval rates

Baseline data on short inter-pregnancy interval rates were gathered in both Trusts, which demonstrated a significant unmet need for postpartum contraception. Northern Ireland Regional Maternity System (NIMATS) data from 2016 – 2020 indicated that 1 in 8 women in the Belfast HSC Trust booked again within 12 months of giving birth and 1 in 9 in South Eastern HSC Trust. Neither of these figures account for those who become pregnant again but whose pregnancies end due to miscarriage, ectopic pregnancy or abortion.

Data gathered from the Belfast HSC Trust Early Medical Abortion Service between April and July 2020 indicated that 1 in 4 parous women seeking abortion had given birth in the previous 18 months, and 1 in 6 in the previous 12 months.

Staff survey

A staff survey was distributed in the Belfast HSC Trust. It was responded to by 20 members of staff, 12 midwives, two midwifery sisters, one obstetric consultant and five O&G trainees.

Staff were asked at which point during the pregnancy they discussed contraception with women.

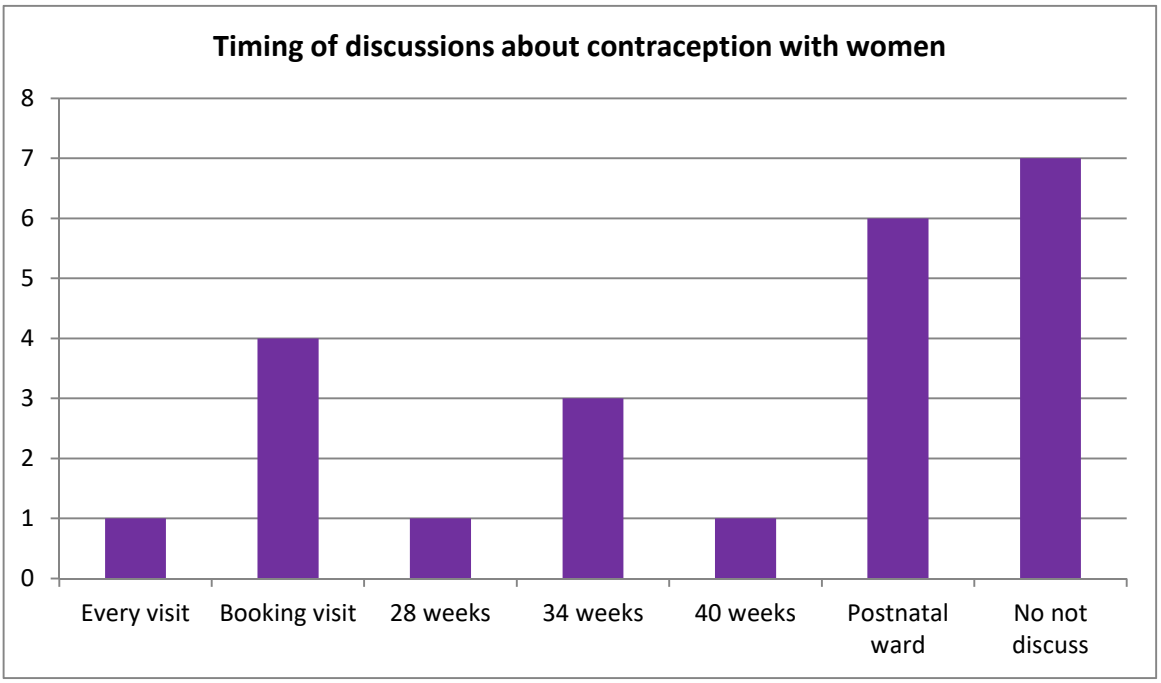


Figure 1. Bar Chart depicting Belfast HSC Trust staff responses in relation to the timing of discussions about contraception with women

Reasons cited for not discussing contraception were: not trained (6), time constraints (2), not a priority in the antenatal period (2).

Staff were asked about the training they had received. Five reported being trained in antenatal counselling, two in contraceptive device insertion at CS and two in contraceptive device insertion following vaginal delivery. They were also asked about their preference for additional training. Staff also reported their preferences for additional training.

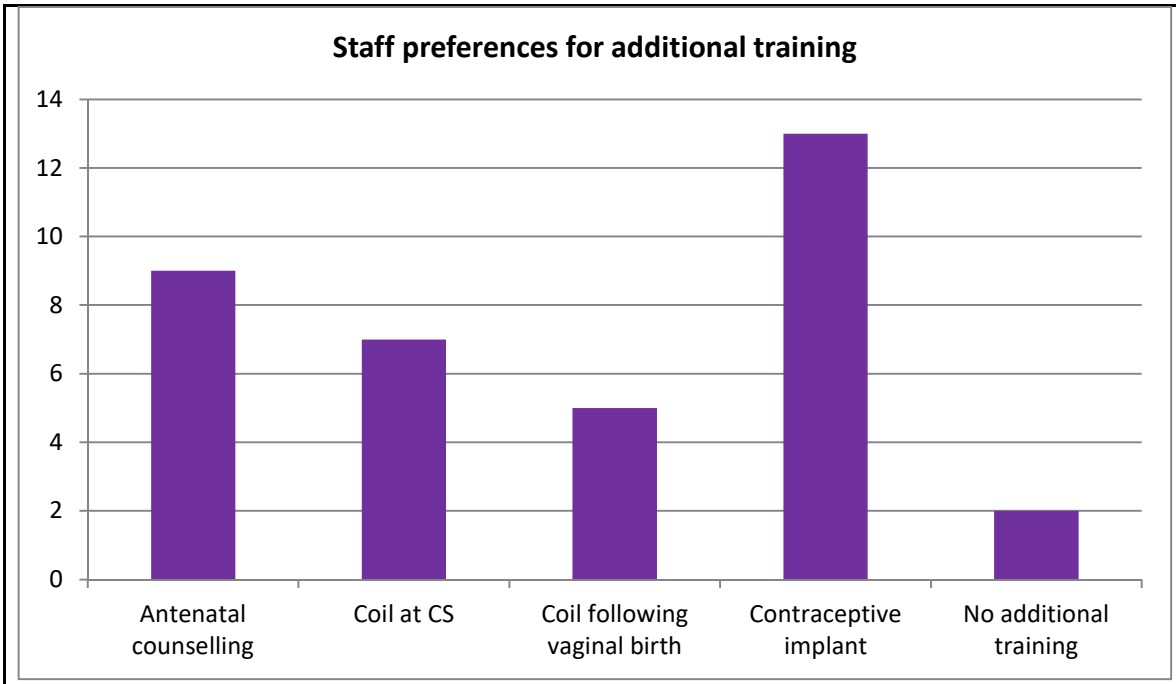


Figure 2. Bar Chart depicting Belfast HSC Trust staff responses in relation to preferences for additional training.

Belfast HSC Trust staff also provided comments on their views in relation to a postpartum contraception service:

"I think it would be a well utilised service and women would welcome it. Barriers could be- Lack of staff to provide in a timely way, considering early discharge pathways"

"Time pressure, staffing pressure on already busy unit. Staff training. Is this service not available through family planning/GP services"

In the South Eastern HSC Trust the survey was disseminated to staff. Ten obstetric staff and two midwives responded. (n=12 total).

There was variation in the timing of the contraception discussion; the majority of discussions were at the booking appointment (33%) and at 34 weeks gestation (33%). 25% stated they did not routinely discuss contraception.

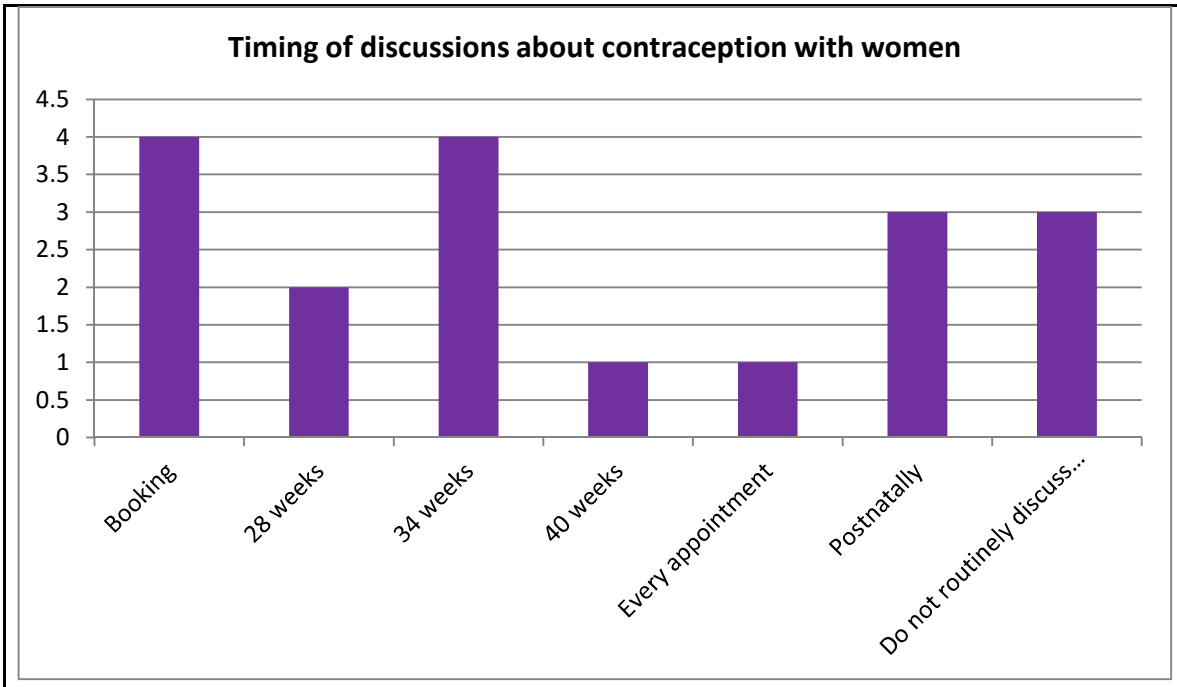


Figure 3. Bar Chart depicting South Eastern HSC Trust staff responses in relation to the timing of discussions about contraception with women

The most common barriers to discussing contraception were stated as time constraints at antenatal clinic appointments (six respondents) and that the South Eastern HSC Trust does not provide all contraception options on site postpartum (five respondents).

Staff provided the following comments:

"Lack of midwives generally, but I believe we should have 2 specially trained midwives appointed to perform this role with all postnatal patients"

"Contraception discussion should be started at booking. Although we don't offer all contraception available, we should still discuss and offer what we can provide and inform women of what they can access at their GP/ Family planning clinic. This is as important if not more important than discussing their birth plan, analgesia in labour, mode of delivery!"

Staff expressed a preference to have better training in postpartum contraception counselling in addition to training in providing LARC; 55% wished to have training in postpartum contraception counselling. 90% wished to train in contraceptive intrauterine device insertion following vaginal birth and 63% on Implant insertion.

"I would love to be able to insert Implant/ IUD/ provide OCP/ give contraception/ patches."

Patient surveys

In the Belfast and South Eastern HSC Trusts, surveys were distributed to both antenatal and postnatal patients.

Antenatal surveys

33 antenatal women in the Belfast HSC Trust responded to the survey. They were asked if

they would consider postpartum contraception and who should discuss this with them during their pregnancy. 31 out of 33 (94%) women stated that they would consider postpartum contraception.

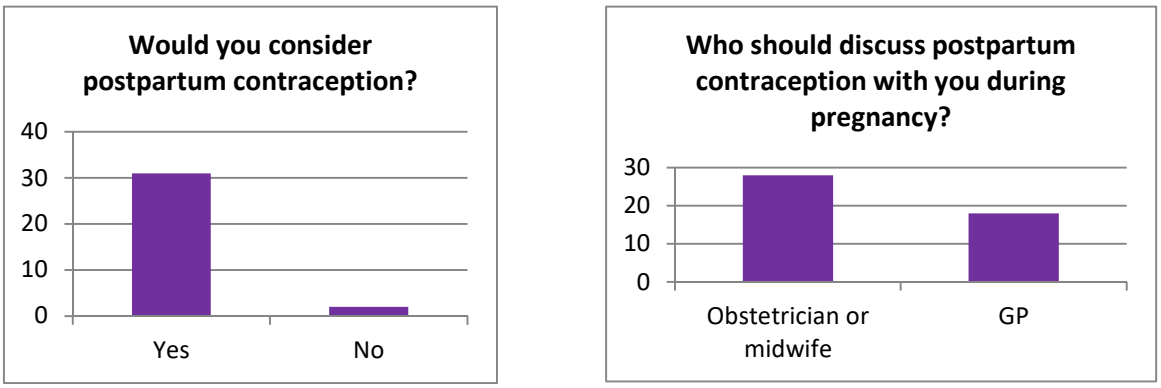


Figure 4. Bar Charts depicting responses of Belfast HSC Trust antenatal women to questions about postpartum contraception

26 out of 33 (79%) recalled a healthcare provider speaking to them about contraception during their pregnancy. 25 (76%) felt they had been given enough information to make an informed choice. 19 (58%) were interested in commencing long acting reversible contraception.

In the South Eastern HSC Trust, out of 14 antenatal women, 57% indicated they were considering post-partum contraception, 92% felt that this should be discussed during pregnancy and 93% wished to speak to a healthcare provider about their contraceptive needs. However, only 78% could recall speaking with a healthcare provider about contraception during their pregnancy. 42% expressed an interest in commencing long acting reversible contraception.

Postnatal surveys

In the Belfast HSC Trust, out of 50 postnatal women, 16 recalled a doctor or midwife talking to them about contraception during their pregnancy. 27 discussed contraceptive options with a doctor or midwife after their pregnancy.

13 commenced contraception; in 12, this was prior to going home with their baby. Two commenced contraceptive device IUS, 11 commenced POP. In 12 this was commenced by an obstetrician. One commenced postpartum contraception through their GP.

12 out of 50 women reported either being unable or unsure how to access postpartum contraception following the birth of their baby. 37 reported that had they been offered contraception prior to going home with their baby, this is an option they would have considered. 10 reported a preference for contraceptive device IUS, three subdermal implant, four depo-provera, 29 POP, four stated that they would accept any method.

In the South Eastern HSC Trust, out of ten postpartum women, 78% were considering commencing contraception, 40% were unsure of which method, no woman had planned to commence contraception in the first 48 hours, and all women were intending to wait until

their six week postnatal check.

Quality Improvement Outcomes

Belfast HSC Trust

Uptake

For 2020, the average number of contraceptive devices inserted per month in Belfast HSC Trust was 10. The average rate of contraceptive device insertion at elective caesarean section was 17% (1 in 6)

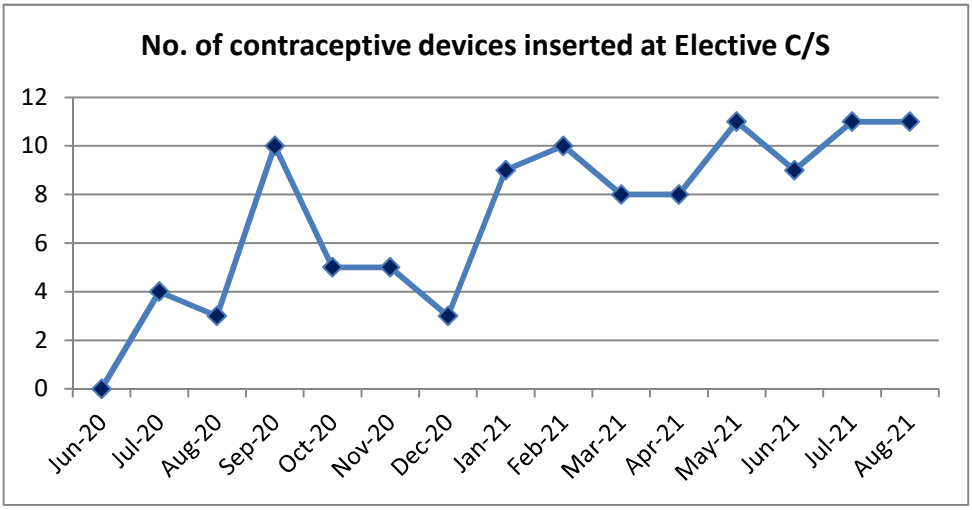


Figure 5. Number of contraceptive devices inserted at elective caesarean section in the Belfast HSC Trust

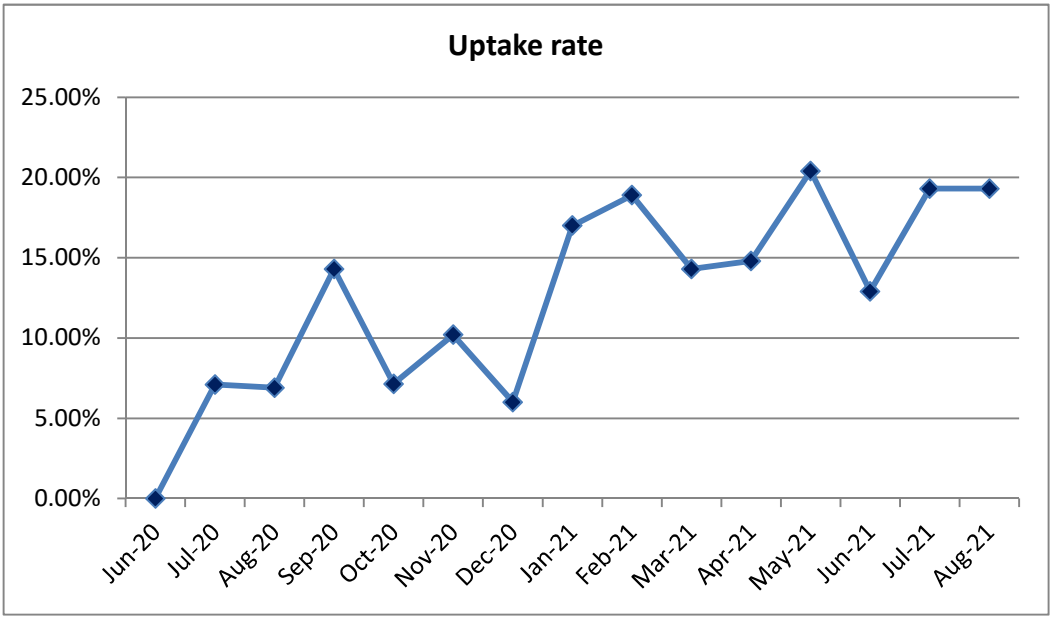


Figure 6. Uptake rate of contraceptive devices inserted at elective caesarean section in the Belfast HSC Trust

In the Belfast HSC Trust, between 1 July 2020 – 26 September 2021, 145 contraceptive devices were provided to women within 48 hours of giving birth.

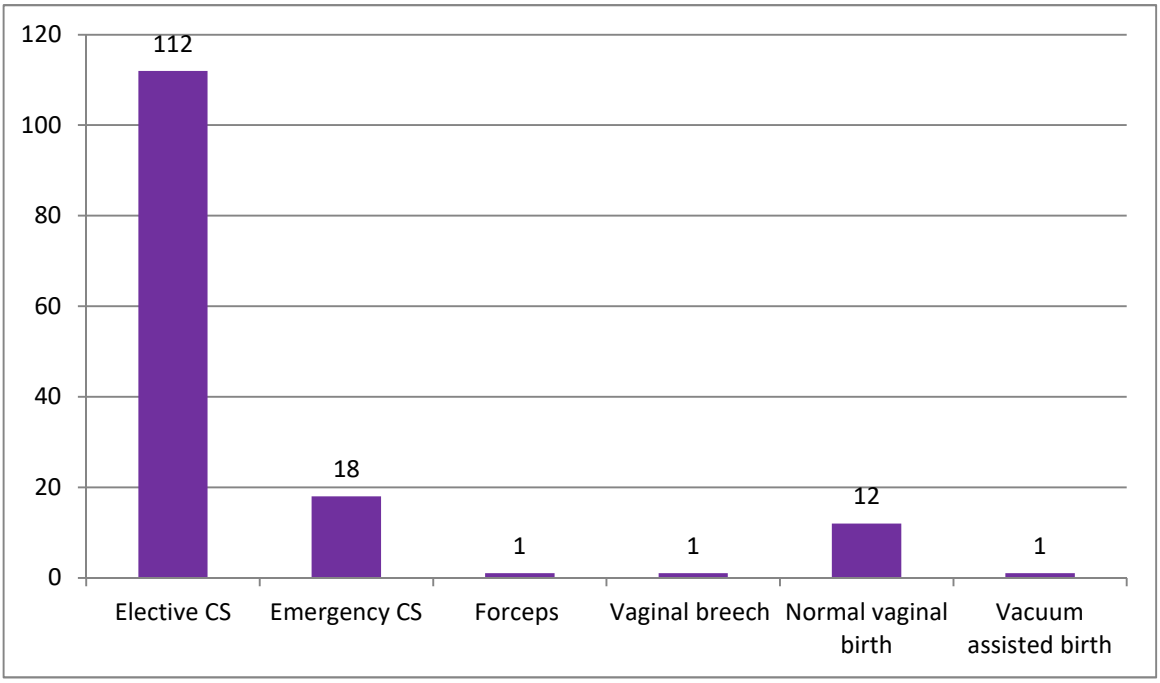


Figure 7. Number of contraceptive devices provided according to mode of delivery

Audit of clinical records of women undergoing caesarean section

Despite the encouraging uptake rate, a follow up audit indicated that there is room for improvement. A review of the clinical records of women who had undergone elective caesarean in the Belfast HSC Trust indicated that out of 20 women included in the audit, only three (15%) had documentation of contraceptive device having been offered. Of those women, where the documentation indicates they were not offered a contraceptive device. 5 out of 17 had high-risk obstetric conditions (including pre-eclampsia and gestational diabetes) and two out of 17 were of high-parity (fifth baby); representing missed opportunities to prevent complications that may arise in future pregnancies.

Patient outcomes

Data were gathered on outcomes following contraceptive device insertion, at elective caesarean section. The expulsion rate following elective caesarean section was exceptionally low. 2 out of 112 were identified to have expelled, with an additional one inadvertently removed during speculum examination (2.7%)

However, it should be cautioned that the DNA rate was high (approximately 40%); therefore amongst those women who did not attend for review, there is a possibility of unidentified expulsions.

Patient satisfaction

Nearly 100% of women reported being satisfied with their contraceptive device, with the

exception of one woman who requested removal at the review appointment.

Five women required long strings to be trimmed at the review appointment.

DNAs

The DNA rate was high in the Belfast HSC Trust with approximately 40% not attending their review appointment. Unfortunately, 16 had not been offered a review appointment and one had been directed to their GP for follow-up. When this was identified, the system for arranging review appointments was improved and all women are now provided with a text reminder in an effort to reduce the DNA rate.

South Eastern HSC Trust

Uptake

The average number of contraceptive devices inserted per month in the South Eastern HSC Trust was n=4 (n=14 total insertions in total to date). The average rate of contraceptive device insertion at elective caesarean section was 5% (1 in 20).

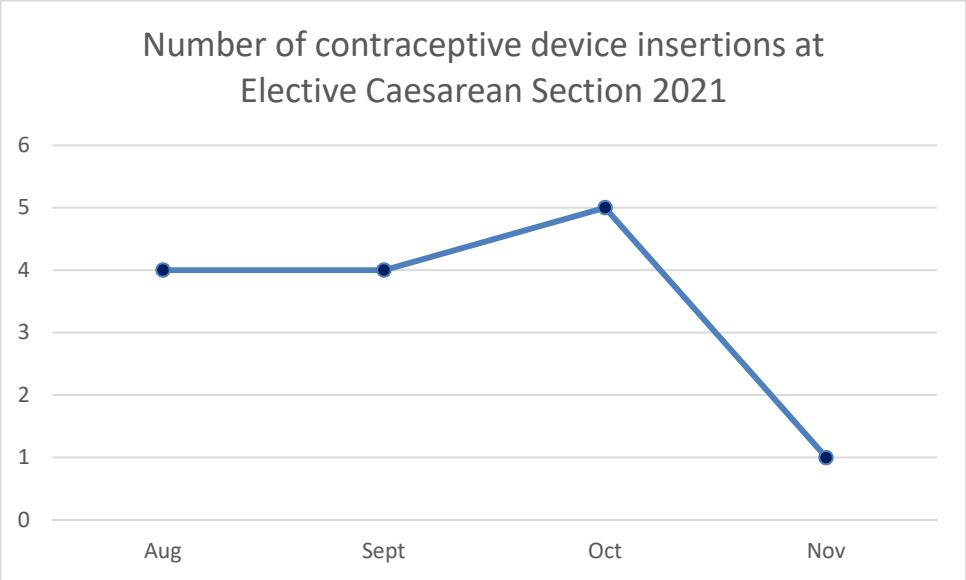


Figure 8. Number of contraceptive devices inserted at elective caesarean section in the South Eastern HSC Trust

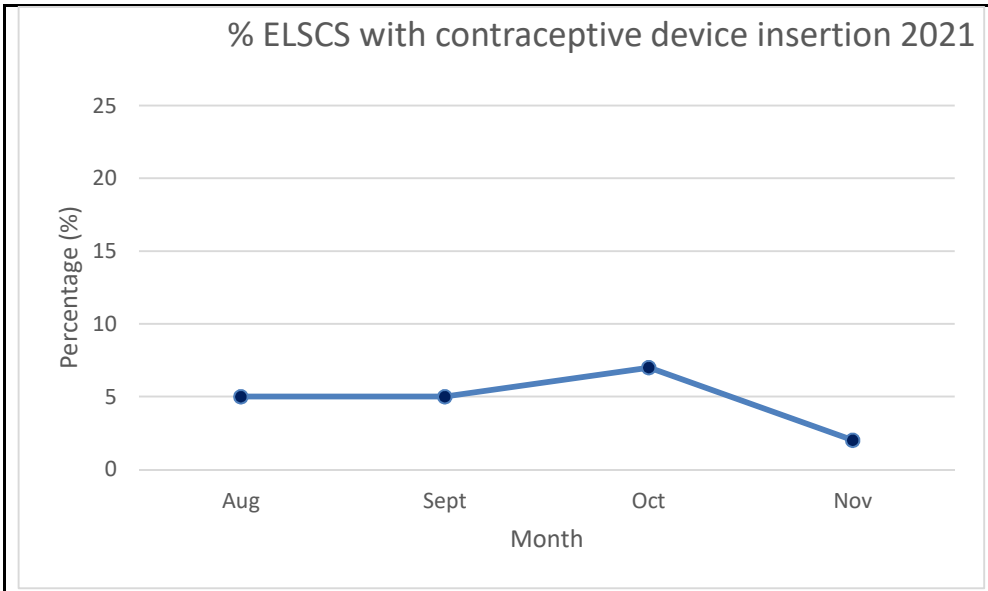


Figure 9. Uptake rate of contraceptive devices inserted at elective caesarean section in the South Eastern HSC Trust

Preliminary findings were similar to those in the initial phase of the Belfast HSC Trust pilot. Further staff engagement is planned in order to increase uptake in the coming months.

Patient Outcomes

Nine out of 14 women have completed follow-up. To date, there have been no DNAs.

All women had been provided with pre-procedure counselling and had completed follow-up within 6 weeks after insertion.

Follow-up outcomes	**n = 14**
Antibiotics for endometritis	2
Coil Expulsion	3
Threads trimmed	4

7 out of 8 women who completed satisfaction scores said they were either very satisfied or satisfied with the coil service. One woman who was unsatisfied due to partial expulsion, had a contraceptive intrauterine device reinserted at her review appointment and commented *'I would still recommend the service'*.

Other comments from women were: *"Pain free, convenient"* and *"No issues with the coil"*

Discussion

Baseline data on short inter-pregnancy interval rates across both Trusts highlighted a significant unmet need for postpartum contraception, a need that is reflected both nationally and regionally. Furthermore, antenatal patient surveys indicated a strong preference for antenatal counselling and the option of LARC provision in the postnatal period. The mandate for service development is further strengthened by national guidance and recommendations by RCOG, FSRH and RCM[19].

This much-needed quality improvement was developed and rolled out during the COVID-19 pandemic; at a time when LARC within the community had been inaccessible. Women, more than ever, had been keen to avoid an unintended pregnancy[23] ; it was considered to be essential that some form of contraception provision existed within our maternity services. Although LARC provision was the primary aim of this project, it was recognised that it would take some time before it would be available to all eligible women; therefore, the decision was made to offer all women in the Belfast HSC Trust the progestogen-only pill, in acknowledgement of the significant difficulties women faced in accessing contraception in the community.

An early success in the Belfast HSC Trust, had been the introduction of a service offering all eligible women undergoing elective caesarean section, the option of having a contraceptive device inserted at the same time. This procedure in itself is relatively straightforward, does not require advanced skills and does not significantly lengthen the operating time. However, this needs to be partnered with fully informed discussions with women about the contraceptive method, insertion procedures, risks and alternatives, in advance of the insertion date in order to allow women time to consider. Therefore, the QI focus of the project was to upskill staff in antenatal counselling and develop patient information leaflets, consent forms, guidance and standard operating procedures. In addition, a care pathway which included appropriate follow-up arrangements was also developed. Despite the findings of an audit which indicated that the service could be offered more consistently, the uptake rate in Belfast HSC Trust is very encouraging and presently averages 17%. With the caveat that the DNA rate is high (approximately 40%), of those who opted for contraceptive device at caesarean section and attended for review, the expulsion was exceptionally low and patient satisfaction appeared to be extremely high, which is in line with larger published studies of this kind. Exceeding the expectations of all involved, this early win sustained momentum and further raised awareness of the service. Although encouraging, it should be noted that there remains room for improvement; learning from the audit indicates that there is a need for, at a minimum, better documentation of discussions with women around postpartum contraception. It is also necessary to ensure that no opportunities are missed to offer women, particularly those from high-risk groups, the option of LARC at the time of caesarean section. One possible way forward is to consider incorporating postpartum contraception into routine maternity safety huddles and handovers.

The key priorities are now to embed the contraceptive device at caesarean section service whilst scaling up to provide a full postpartum contraception service. The QI teams in the Belfast and South Eastern HSC Trusts have worked to ensure that all new staff and

existing obstetric staff are skilled and confident in antenatal counselling for contraception, that there is clear up-to-date local guidance and workable pathways in place to facilitate delivery of the service. To date, midwifery involvement has been hampered by significant staffing shortages and the need for greater support n at a local leadership level. Encouragingly, however, midwives on the ground are very enthusiastic about the service and are keen to be upskilled.

Learn-pro modules have been made accessible to midwifery and other relevant staff groups. However, it is important, that regardless of who is delivering the service, midwives are confident in counselling women regarding their contraceptive needs and options. Going forward, QI teams are keen to increase midwifery involvement by identifying a small number of midwives to be trained to deliver a contraceptive implant service. One possible approach is to upskill those midwives who work with high-risk populations, for example, midwives who work with women with social vulnerability factors in the Belfast HSC Trust. Harnessing the relationships that midwives already have with these groups of women would further encourage contraceptive uptake.

However, in keeping with national guidance, the ultimate aim is for all eligible women to be facilitated to have a contraceptive implant inserted prior to going home with their baby, should this be their preferred option. As part of Phase 2, plans to upskill a cohort of both obstetric and midwifery staff in contraceptive implant insertion have been disrupted by both the pandemic and a Belfast HSC Trust patient recall, which has increased the level of scrutiny around the governance of contraceptive implant insertion. All contraceptive implant providers within the Trust should now be accredited by FSRH; this will increase the training costs and timescales required when compared with in-house training and subsequent demonstration of competency.

Tentative progress has been made in developing a contraceptive device after vaginal birth service in the Belfast HSC Trust. A number of obstetricians working on the Labour Ward have been upskilled to provide this procedure and are building experience in its delivery. Expulsion rates are expected to be initially higher but, in keeping with evidence from large-scale international studies, are anticipated to fall as providers gain experience. A QI approach, in addition to robust governance and data collection around outcomes, will be key to ensuring that the quality and effectiveness of service is monitored and further improved, as necessary.

The South Eastern HSC Trust understandably experienced a delay in implementation arising as a result of the COVID-19 pandemic and unavoidable changes to the composition of the QI Team. Despite this, the foundational work undertaken has been excellent in terms of staff engagement and the development of local guidance, standard operating procedures and a robust care pathway. Whilst the principles remain the same, service design in this Trust has been adapted to suit the co-ordination and delivery of care specific to the unit and it is anticipated that the results will lead to valuable learning, both for the Belfast HSC Trust and the wider region.

Raising awareness of the need for postpartum contraception and the developing services that are available should be a priority, not just at a local level, but at a regional level. In addition to the efforts of Trusts to promote their services, the QI Leads are keen to engage

with GP Federations, the Public Health Agency and Department of Health around the need for greater public awareness of the benefits of birth spacing and postpartum long-acting contraception provided within maternity units. At a policy level, any new or updated Maternity Strategy should reflect the need for postpartum contraception provision. Equally, it is important that commissioners are engaged in discussions around any requirement for additional funding going forward; although, it should be noted that, to date, these services have been provided without any substantial additional cost and, supported by both national and international evidence, are highly likely to lead to significant cost savings in the medium to long-term[24]. It is the view of QI Leads that ahead of a formal regional direction to implement postpartum contraception services, all Trusts should begin to offer these services, adopting a QI approach with small step change and scaling up. Sharing the learning through existing regional forums and channels will also be crucial.

Conclusion

The project and its early successes illustrate how an identified unmet need can be quickly, albeit partially, addressed using only staff enthusiasm, the application of QI methodology and relatively modest funding. Just as learning and support from NHS Lothian was vital to service implementation in the Belfast HSC Trust, learning from the QI approach of both Belfast and South Eastern HSC Trusts can now be shared with other Trusts across the region. Capitalising on success, maintaining momentum and embedding services will be key to sustainability. Scaling up to provide a full contraception service is likely to meet with further challenges, particularly in securing midwifery involvement at a time when the midwifery workforce is under considerable pressure. Nonetheless, it is important that efforts continue and that learning is shared regionally, alongside engagement of policy-makers and commissioners about the clear need for, demonstrable benefits of and the quick and easy, yet effective nature of the service. Any future strategic direction of maternity care in Northern Ireland, needs to take account of the wider public health context and how contraceptive awareness, education and provision is essential to improving outcomes for women, girls, and their families.

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