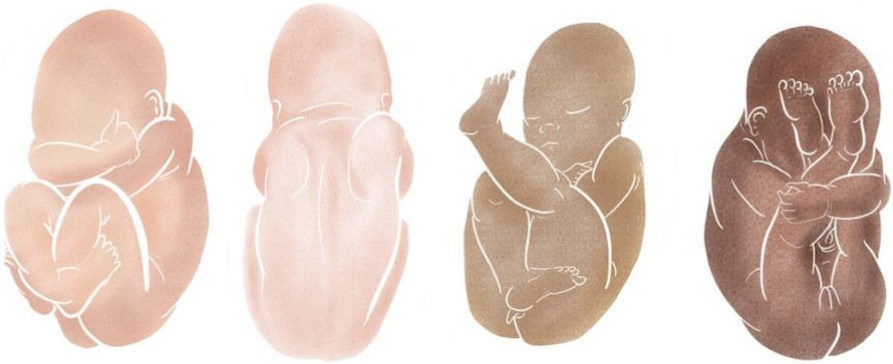
Breech Clinics and Specialist Midwives Toolkit:

How to build an OptiBreech service from the ground up



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Contents

Policy Brief

This toolkit brings together clinical and social science evidence in favour of delivering care for breech pregnancy and childbirth through a **dedicated clinic** and **intrapartum care team**, co-ordinated by a **breech specialist midwife**, working in collaboration with a **breech lead obstetrician**.

The majority of team roles includes tasks that are already performed by someone in your organisation. They key is to **task-shift**, so that all breech-relevant service leadership tasks are performed by the specialist(s). This increases their expertise, and their work increases skill and competence across your team.

This model addresses two known problems: **individualised care and safety**. Women want individualised care in line with national guidance, but the way services are usually delivered within the NHS makes this difficult. **Clinics and specialists standardise practice**, reducing biases in the direction of both caesarean section and vaginal birth. Women receive easier access to both planned vaginal breech birth and planned elective caesarean section. Specialists also drive up the **safety and quality of care** by helping research inform practice as quickly as possible and facilitating cultural change. They enable vaginal breech births to occur in a planned an organised manner, creating learning opportunities that make unplanned births safer.

Background information

What is the problem?

Across the UK and internationally, women have raised concerns about inadequate support in breech pregnancy.[1–6]While some women are relieved to be offered a caesarean birth (CB), other women report no option but to deliver by CB, causing 'stress, anger, fear and injustice,'[7] and in some cases long-term emotional trauma.[8] Some feel pressured to attempt an external cephalic version (ECV).[9–11] An ECV is a procedure to manually turn the fetus head-down using pressure on the maternal abdomen. Some experience the procedure as very painful, with over 10% describing it as 'intolerable.'[12] Others are very happy to have an attempt at the procedure.

Some providers discourage breech births due to a lack of confidence arising from minimal experience[13] and evidence that CB reduces the risk of perinatal mortality and severe morbidity compared to classical/supine methods of breech delivery (RR 0.07, 95% CI 0.02 to 0.29, one study, 1025 women).[14] This is understandable but out of line with individualised decision-making.[15] Supporting the choice of breech birth may reduce risks in future pregnancies for both mothers and babies, such as increased risk of preterm birth and stillbirths.[15] Elective CB offers some benefits for babies but also creates risks for mothers, especially those who plan to have further children. Rising rates of morbidly adherent placenta, resulting from previous uterine scars, were highlighted in the 2018 confidential enquiry into maternal deaths and morbidity.[16] Facilitating planned vaginal births for women who choose them also enables younger obstetricians and midwives to learn breech skills, potentially improving the safety of unexpected breech births.

Breech presentation occurs in 4% (1:25) of term pregnancies.[15] As many as 35-58% of women may prefer to plan a breech birth, but this is highly dependent on the type of counselling they receive.[17,18] A 2014 survey of UK maternity units found that only 27% offered support for a vaginal breech birth.[19] Some hospitals have created breech clinics and/or an on-call team to revive breech skills;[20–22] these attract women who lack local support.[23,24] In some hospitals, the vaginal breech birth rate can be as high as 6-11% of the total birth rate due to women travelling to experienced providers,[23,24] compared to 0.4% of the total birth rate in the UK.[25] This suggests inequity and demand for skilled breech birth care.

The RCOG summary of evidence suggests that with skilled and experienced practitioners, breech birth may be 'nearly as safe as cephalic birth' (perinatal mortality per 1000: CB=0.5, cephalic birth=1, breech birth=2).[15] Over 96% of all term breech babies are born by CB in the UK,[25] and breech is the indication for 14% of all CB in countries with a low perinatal mortality rate.[26] The majority of breech presentations occur in first pregnancies. Breech presentation is the most common indication for a primary CB and contributes significantly to repeat CB due to previous CB.[27] To reduce the CB rate for breech, most women whose babies present breech at term are recommended an ECV.[28] But ECV has not been shown to improve outcomes for babies, compared to no ECV, in multiple Cochrane Reviews.[28]

Up to 30% of breech presentations are also first discovered in labour,[27,29] when the maternal risks associated with in-labour CB are higher. For example, a CB performed at full dilatation carries eight times more risk of maternal death than one performed earlier (OR 7.96 95%CI 1.61-39.39), in addition to an increased risk in preterm births in subsequent pregnancies.[30,31] A loss of breech skills over the last few decades has introduced additional maternal and neonatal risks for these unexpected breech births.[32,33] Despite representing only 0.4% of all births, vaginal breech births accounted for 12% of NHS litigation costs related to cerebral palsy in a recent review.[25,32] All but one of these were unexpected, with the breech presentation detected for the first time late in labour. Even third trimester universal ultrasound does not eliminate all undiagnosed breech presentations in labour.[15]

How does the OptiBreech approach offer a solution?

The OptiBreech approach offers a planned, managed way to build a physiological breech birth skill base throughout your maternity service while minimising risk to women and babies while you do this. Key to the implementation of this approach is care through a dedicated clinic, which is co-ordinated by a breech specialist midwife, working in collaboration with a breech lead obstetrician. The OptiBreech 1 study demonstrated that specialist clinics and breech specialist midwives are highly valued by women and address their needs in three ways: balanced information, accessed to skilled intrapartum care and shared responsibility.[34]

What is physiological breech birth?

Physiological breech birth is an approach to facilitating vaginal breech birth centred on the optimisation and restoration of normal physiological processes, including upright maternal positioning. The OptiBreech approach to physiological breech birth is based on the strongest evidence base available to define the 'normal' parameters for a breech birth.[35,36] It is also underpinned by the only breech training programme in the world that has evidenced improved confidence, knowledge and clinical outcomes following training.[37]

Fortunately, we now know that the 'normal parameters' of breech births with good outcomes differ significantly from what has previously been considered normal. To adopt new methods, experienced staff who have practiced and taught differently for many years need to un-learn previous habits and beliefs to achieve better outcomes. This is difficult to accomplish uniformly across a large service in a short period of time. Developing a few key members of the team to an advanced proficiency level,[38] and tasking them with supporting the wider team, appears to be the optimal approach to introducing new breech practices with a safety net.[34]

What does OptiBreech 'proficiency' mean?

In the OptiBreech studies, a specific definition of proficiency is used. This definition is based upon prior research with experienced professionals.

A professional is considered currently proficient to facilitate OptiBreech care if they have:

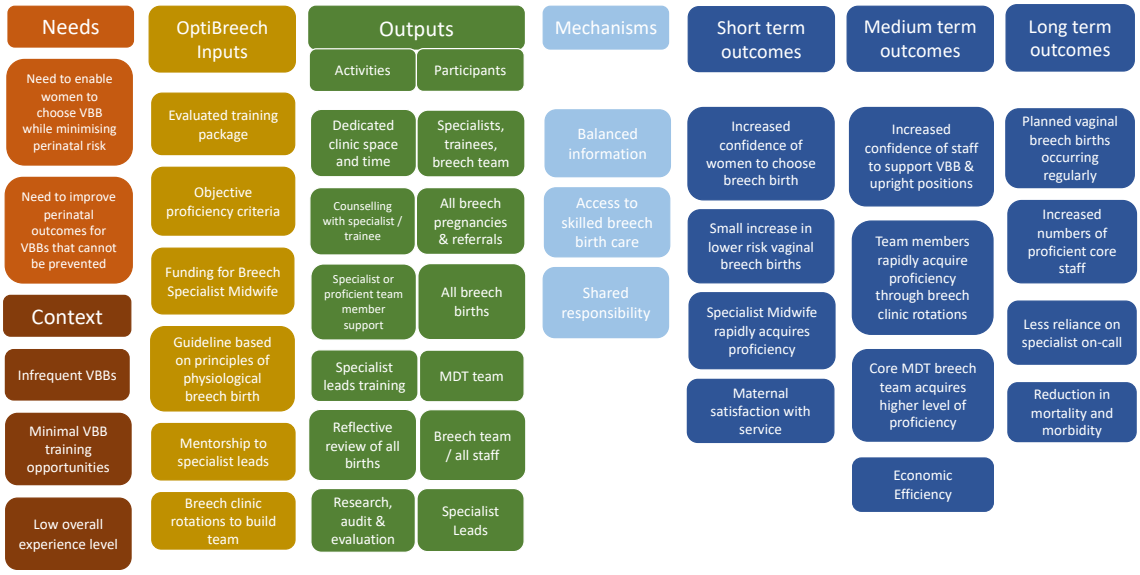
1) Participated in 6 hours of evaluated physiological breech birth training (OptiBreech training);[37]
2) Attended at least 10 vaginal breech births, including resolution of complications using manual manoeuvres;
3) Attended or taught in simulation at least 3 vaginal breech births within the past year; *
4) Delivered physiological breech birth training at least once within the past year, including reflective reviews of births attended;
5) Confirmed that they feel competent to implement the OptiBreech Practice Guideline at vaginal breech births where they are the designated clinical lead, and this has been confirmed by the OptiBreech Leads.

* Where professionals have attended at least 10 vaginal breech births in their career, but not 3 within the past year, it is possible to meet these criteria by teaching physiological breech birth simulations. This is because teaching skills involves more complex recall, including anticipation of others' thought processes. Teaching has been identified in research as an important aspect of developing and maintaining proficiency.[38,39]

What is the evidence for this model of service delivery?

This model of care is based upon a logic model, built up from prior research and refined through feasibility work in preparation for the OptiBreech Trial.[34] It is also informed by research and experience of other sites, in the UK and abroad.[40–43]

Figure 1: OptiBreech Logic Model, June 2022



What you need to build a breech service

A dedicated breech clinic

Counselling for breech options (ECV, VBB, CB) is a skill like any other that takes time and practice to develop. In a dedicated clinic, women received balanced counselling from professionals who are

focused on their needs. Clinic staff are doing this regularly, rather than occasionally, ad hoc. A dedicated clinic also provides time to deliver appropriate counselling.

This is not an additional service, but a reorganisation of existing services so that better quality can be more consistently achieved.

For professionals undertaking a breech clinic rotation (see below), knowing they are likely to attend the planned breech births of women they know increases motivation to be on-call and increases the likelihood that they will undertake deliberate practice (see below), reviewing breech skills and guidelines. This has a crucial effect on safety and practice-based learning.[39]

> "I have set up the clinic, although I do have a dedicated consultant cover for that, but I manage all of the referrals, have all of the conversations with the women, and I do the vast majority of the teaching for breech skills at [our site]. So I teach on the maternity education days, and I've jointly done the policy and those kind of things. But I have had a colleague, and so I am predominantly the person that is on call at the moment, but with a colleague who's been on call with me as well."
>
> - *An OptiBreech Lead Midwife, Site 102*

Recommendations:

- This clinic should be held one day per week in the morning, with ECVs performed in the afternoon. In larger Trusts, two days per week may be required.
- Women should be referred from 34 weeks with a known or suspected breech presentation. This is because women have indicated they would like more information earlier, with time to make informed decisions.
- Use a common 'breech clinic' e-mail distribution list, so that multiple team members can manage urgent referrals and colleagues can easily make referrals.
- Clinic activity should be co-ordinated by a breech specialist midwife, working in collaboration with a linked breech lead obstetrician.

A Breech Lead Obstetrician

This will usually be the obstetrician the clinic is assigned to. The obstetrician develops experience and comfort working with the breech team. Importantly, they provide consistent support. Breech care is one area of obstetric practice wide variation in personal practices and opinions is universally acknowledged. A safe service requires consistency. Staff need to be able to develop skills to offer all women and birthing people care in line with national and local guidance and/or research protocols (for OptiBreech sites), without worry that their practice is going to conflict with the personal practice or opinion of an individual consultant. When your breech team has consistent leadership, women will receive consistent care.

> "I set up a breech birth clinic, which started off as a half day clinic that then turned into a full day clinic because we started getting external referrals as well. All women that had a breech presentation were referred in to see me, and I was able to counsel them in all their options, and I would do on calls to facilitate women having a breech birth. I used to get called by the obstetricians if a woman came in asking if I could come and support them to do the birth. So my role was really then gaining my own experience, but also supporting others to gain their experience as well. And that ranged from junior midwives through to senior midwives, through to obstetricians and consultants."
>
> - *An OptiBreech Lead Midwife, Site 101*

The obstetrician may not counsel every woman, especially those who are otherwise low-risk, but they will review cases as required and be available for consultation from the midwives working in the clinic. This should be a formal part of their job role. They may or may not put themselves on-call for vaginal breech births, outside of their regularly scheduled labour ward on-calls. The breech lead obstetrician also has a role in ensuring colleagues receive practice updates, understand what is expected of them when they are on-call and understand how the clinic and team work.

Recommendations:

- The breech lead obstetrician person should be visible as the leader of the breech service. They should deliver breech training within mandatory training sessions at least once per year. It is appropriate for this to be during their own mandatory training day, as preparing to teach is their update.
- It may also be helpful for the breech lead obstetrician to get involved with teaching outside the local institution, such as with Breech Birth Network, to be a part of a wider community of practice, share experiences, reflect on the local service prior to presenting results to others, etc.

A Breech Specialist Midwife (Band 7 or 8)

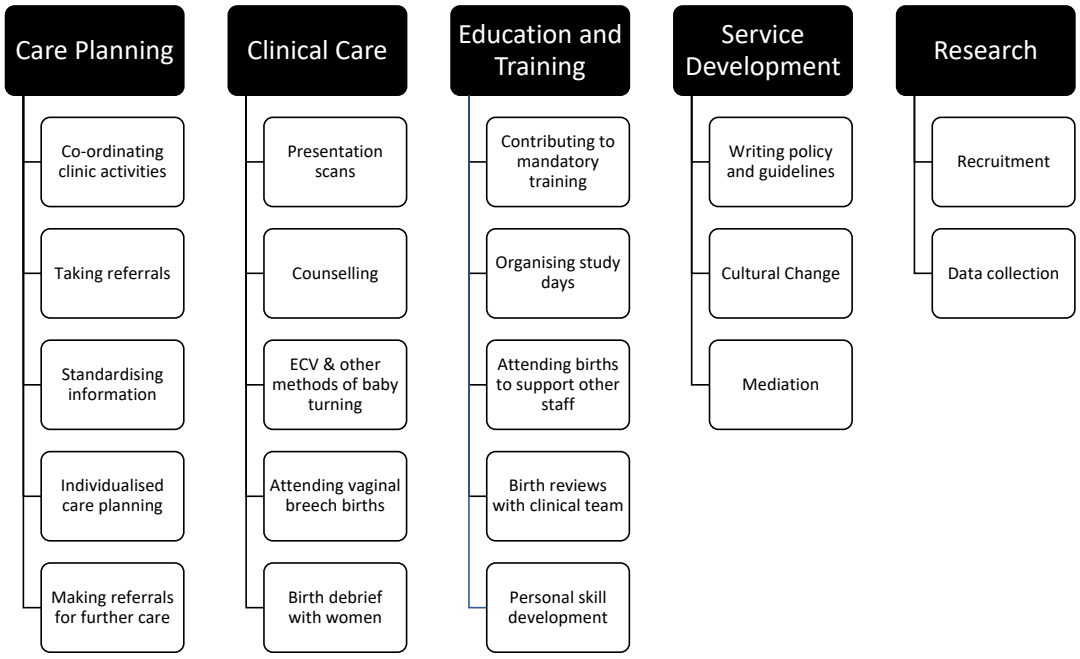
This is the key co-ordinator of the service. The breech specialist midwife needs to have achieved, or be working towards, competence in all areas of practice required for her role. A proficiency achievement record is available in Appendix 1. Along with the breech lead obstetrician, they should be highly visible through teaching.[38] They should also undertake regular updating to disseminate the latest research and practice recommendations.

> "What else makes a good team? Clear leaders, I mean, not just consultant midwives. But who else is a kind of breech champion? … But yeah, for all midwives to know who to go to if they're looking for support with counselling or if they're caught in an unexpected breech situation."
>
> - *OptiBreech team member, Site 101*

The ideal person for this position is an experienced Band 6 midwife or Band 7 midwife who is ready to progress to a leadership role but does not currently have multiple high-level competing commitments.

Roles and activities of a breech specialist midwife

Figure 2: Roles and activities of breech specialist midwives



Where does the money come from?

Approximately 1:20-25 women has a breech baby at 36 weeks of pregnancy (4-5%). Most of the specialist roles are task-shifted from other roles commonly performed by advanced generalists. Clinic activities usually fall under standard antenatal clinics, day assessment units and/or birth choices clinics. The breech specialist midwife's role is partially funded by budgets for the areas from which these activities are being removed. The specialist should be part of the practice development team, as they will be responsible for breech training throughout the organisation, and a portion of the role will be covered by this budget. The specialist should also be part of the risk and governance team, and a portion of the role will be covered by these budgets. Reviewing births with the clinical team, following favourable and adverse outcomes, helps staff to consolidate their learning. It also identifies areas that need to be emphasised more in clinical teaching activities. Assisting with guidelines and cultural change helps ensure current best evidence is used to inform practice as quickly as possible.

Funding for Breech Specialist Midwives comes from the following existing budgets:

- Practice Development
- Governance & Risk
- Antenatal Care / Day Assessment
- Labour Ward
- Research

Labour support activities come from intrapartum care budgets. At every vaginal breech birth, extra support is given because the birth is higher risk, experience levels are low generally and there is a need for training opportunities. Delivering this support in a planned way, from individuals with additional experience and expertise, increases safety. It also means that core staff are not drawn away from co-ordinating the labour ward, which can be avoided for planned events especially. The right person is in the right place at the right time.

If external cephalic is included in the role, this usually comes under either the labour ward or antenatal/day assessment budgets.

Personal characteristics and circumstances required

An 'affinity' for vaginal breech birth – Research indicates that to be 'good' at safely supporting VBBs, a person needs to really want to develop skill and experience in this area.

A passion for person-centred care and supporting informed choice – this role requires considerable skill in advocacy and cultural change. When informed choice is supported, more women choose elective CB (rather than ECV), as well as VBB. The role involves gaining clear understanding of the person's values to support all informed choices, rather than promotion of vaginal birth or VBB.

Ability and willingness to spend time on-call – this role involves working flexibly to attend VBBs. In the early years of the service, this responsibility will be more demanding than after additional members of the team are operational. However, this does not equate to an obligation to be on-call 100% of the time, and it is appropriate to advise women of holidays, etc.

Compensation and Support

To be covered by Trust insurance, breech specialist midwives or those completing a breech clinic rotation should be paid for all hours they are working or given time back. These hours, and hours spent by the breech specialist midwife providing additional counselling and support at birth, are included within the economic cost listings.

Service managers are key to ensuring the success of specialist training and rotations. It takes time to embed the cultural expectation that the person on breech clinic rotation and/or specialist should be called to assist in some way with every breech birth – planned at term, unplanned, unplanned late premature births, physiological twin births, and intrauterine deaths. Even if they are not the person providing hands-on care, they can assist with situational awareness and/or documentation; all of it contributes to consolidation of their practice.

For full-time employees, births will coincide with their scheduled hours approximately 22% of the time. Depending on the trainee's core role, this may require co-ordinators and managers to assist them to be relieved to go to the birth. Similarly, if a staff member is called out at 11 pm before she is due to come onto a 12-hour shift the next day at 7 am, managers should support this by arranging cover, as they would if a staff member were ill. The breech specialist midwife may also assist in providing some of this cover so that other members of staff can attend births and/or rotate into breech clinic to consolidate their practice.

While this is disruptive in the short-term, in the long-term it results in a service that is more saturated with proficient team members, who have had an opportunity to consolidate their practice and incorporate new research into their everyday understandings about breech birth.

> There's been quite an appetite for it for a little while, among certainly among the more senior midwives. But I was really surprised by how many of the more junior midwives wanted to take part as well. So I think I had 17 people come forward to say that they'd like to be involved across both sites, which is more than I expected, and all of them were so passionate about women focused midwifery led care. So actually, that part of it was much easier than I thought. And there were a few surprises amongst the people that came forward. People I really wouldn't have expected, along with the people that I knew absolutely would have wanted to be part of it. So that's actually been really nice.
>
> - *An OptiBreech Lead Midwife, Site 106*

Involvement in research and quality improvement

Leading on practice development, risk management and governance for breech births requires ability to interpret and use research in practice. Ideally, a future specialist is identified early in their career, when they are ready to develop and progress their career and do not yet have many conflicting management responsibilities. Further training, such as a Masters, can be focused on an area of practice relevant to the care pathway for breech presentation. They should also complete Good Clinical Practice training, to enable local leadership of research studies relevant to breech practice.

Training other team members

What training involves

Other members of the team are trained by:

- Completing an enhanced physiological breech birth training package
- Completing a rotation through the clinic (the 'breech clinic rotation'), during which time they complete the basic competencies (presentation scanning, counselling and supporting 10 breech births). The length of this rotation depends on the amount of time required to attend the 10 vaginal breech births recommended.

> So the approach that we are taking is that the OptiBreech team will be made up of myself, about four consultants and the home birth team midwives. And we have a dedicated home birth team that offer a 24/7 on call service for home births. And so when we were exploring options as to how we could implement this sort of on call system as such, that seemed like a natural way to go, because also, the home birth team have probably had more experience with vaginal breech births than a lot about other staff, our other midwifery staff, because they get the undiagnosed ones and we do get women who opt to birth breech outside of guidance at home or on the birth centre.
>
> - *An OptiBreech Lead Midwife, Site 105*

- During their rotation through the clinic, they are on-call for the women planning vaginal breech births, whom they have counselled. They may also be on-call for women planning twin births and providing compassionate, skilled labour care for women who experience a known stillbirth with a breech-presenting baby.
- To accelerate their training, they should also be called to assist with other unanticipated breech births, so their contact information ('breech team trainee') is prominent on labour ward.
- During their training, they are supported by the breech specialist midwife (who attends any VBBs when available), the breech lead obstetrician (same), other breech-experienced members of staff and the breech team in labour settings.

Why is this way of training most effective clinically?

Acquisition of breech competence and confidence within modern maternity services often follows a recognisable pattern, involving affinity with physiological birth, critical awareness, intention,

identity and responsibility.[39] A person who sets a goal of acquiring breech skills and attends several breech births within a short time frame undertakes certain activities known as 'deliberate practice in the acquisition of expert performance.'[44–47] This is similar to the way expert athletes and musicians train. For breech team members, these deliberate actions include repeated review of theoretical materials and videos, regular discussions with other practitioners, repeated simulations, and repeated visualisations of potential complications and their management. This intense period of focus increases skill and situational awareness rapidly. Once consolidated, competence can then be more easily maintained, but the deliberate practice required during skill consolidation cannot be sustained without attending VBBs. Clinicians who attend VBBs very infrequently on an ad hoc basis often do not have support to integrate their experience afterwards. It is therefore most efficient and effective to ensure clinicians willing to undertake a period of deliberate practice are attending any VBBs during their breech clinic rotation.

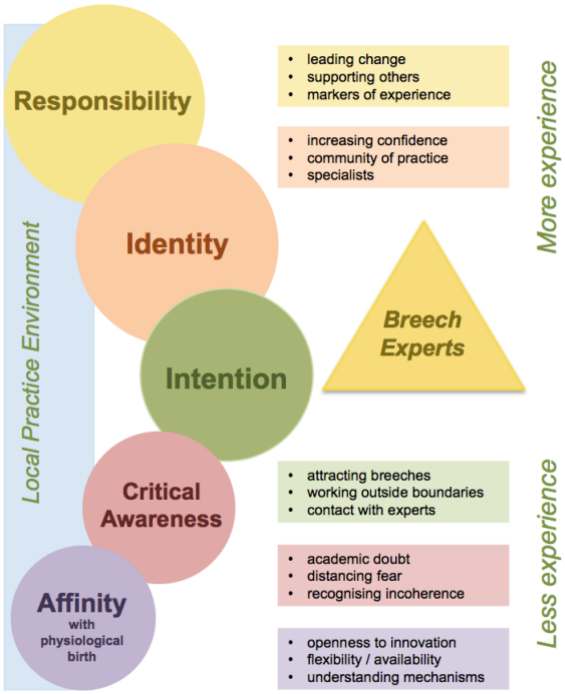
> "[Staff] who's the PDM, is doing hands-on skill sessions, which once we have a woman who wants to have a vaginal breech birth we'll offer those more regularly. So in the past, we've when we've had a planned breech birth waiting in the wings, we've kind of tried to put on two sessions a week so people can drop in and and refresh themselves on what to do."
>
> - OptiBreech Lead Midwife, Site 106

When people refer to breech skills 'being lost,' what is being lost is the generation of practitioners who attended VBBs regularly during their formative practice years and had a 'consolidation period.' Many of those who have trained more recently have never had an intense consolidation period, including consultant obstetricians who are now often required by default to be responsible for breech births, even if they are primarily gynaecological oncologists.

When clinicians complete a breech clinic rotation, they know they will be on-call and responsible for managing planned vaginal breech births (intention), with support. Their rotation begins with completion of the enhanced physiological breech birth theoretical and hands-on training, and they can consolidate this training while it is still fresh (critical awareness). They consolidate it further by delivering the breech component mandatory training activities, which also helps to establish their identity within the wider maternity care team as someone who has undertaken a breech clinic rotation (identity). At the end of the rotation, at a point partially guided by the recommended 10 births and partially guided by the quality of one's experiences, personal and peer assessments, the

person has acquired enough competence and confidence to attend vaginal breech births and support others in this role (responsibility), working as always in collaboration with the wider multi-disciplinary team. The shorter time frame helps to consolidate the learning. As a result, it takes less overall time to acquire a greater amount of competence than if these activities were spread out over a long career.

We first identified the stages (affinity, critical awareness, intention, identity and responsibility) through qualitative research with experienced practitioners.[39] We observed again in the OptiBreech Project that the clinicians who met the proficiency criteria had all followed a similar pathway, often putting themselves on-call informally to achieve it.[34] However, our experience in OptiBreech has been that sites have struggled to develop multiple members of a breech team, partially because they see what the breech specialist midwife does, but not how she learned to do what she does. The breech specialist midwives largely developed themselves independently to a high level of competence, prior to the OptiBreech study, roughly following these stages. Some were then enabled to run the clinic/service, but often without a plan for enabling additional members of the team to develop in the way the specialists have. Some sites where additional members of the team have been developed involve team members throughout the breech care and education pathways, rather than just the births. Going forward, OptiBreech sites will be required to support 'breech clinic rotations,' to enable team members with an interest and capacity to be on-call, to have an intensive period of breech skill consolidation, with support.



Deliberate acquisition of competence in physiological breech birth, first published in Walker et al, 2018, *Women and Birth*

Why is this way of training most cost-effective?

In our evaluation of the Physiological Breech Birth training, we estimated that it cost £88,434 to train 164 midwives and 31 obstetricians from 6 NHS hospitals. In those hospitals in the following year, there were a total of 53 vaginal breech births, and only 21 of these were attended by someone who completed the training. This equates to an estimated cost of £4019.72 per birth that benefited from the training. However, 20/21 of these occurred in hospitals where either individual midwives (sites B & E) or obstetricians (site F) worked flexibly, including some additional on-call time, to ensure they attended VBBs. These clinicians also took a lead on introducing the physiological breech birth approach across the service. Sites B & F continue to have a successful breech service. The service in site E declined when the lead midwife moved to another Trust. Although all other sites continue to incorporate elements of the training into their mandatory training activities, they do not have midwives or obstetricians functioning as a breech team.

When the approach of training a large group was taken, for a cost of £88,434, only 21 births benefited from the enhanced training, and only a small handful of clinicians consolidated their learning in practice, enabling it to benefit future births. Knowledge and confidence acquired in training erodes significantly following obstetric emergencies training,[48] unless consolidated with support in practice.[49] The benefit for future births where learning was not meaningfully consolidated is likely to be minimal.

In the evaluation, no serious adverse neonatal or maternal outcomes (SAO) occurred among the 21 births attended by those who had completed the training, compared to 5/69 (7%) SAO for both mothers and babies among births attended by someone who had not completed the full training, despite some initial dissemination of the physiological breech birth approach. The neonatal SAO rate in the OptiBreech 1 study, which was designed to test the feasibility of getting OptiBreech trained professionals to planned breech births, was 1/82 (1.2%). In that study, teams achieved 87.5% attendance of an OptiBreech-trained professional at births, but qualitative data indicated this was largely reliant on a few key individuals, as it was in the evaluation. The sustainability of this model of service delivery also remained vulnerable in similar ways, except in settings that achieved targeted development of a small group of additional team members.

In our economic costing, the training element of the first breech clinic rotation for a Band 7 midwife is estimated to cost £10,213 to attend the 10 births to achieve proficiency, including time for the

breech specialist midwife to attend out-of-hours to provide support to the trainee. This equates to an estimated £1021.13 per planned vaginal breech birth to achieve the benefit of an OptiBreech-trained professional at all births, and a fully proficient attendant at most births, assuming the service only has one fully proficient attendant. The cost declines as more team members consolidate proficiency. This way of building up competence and confidence, one clinician at a time, will ultimately build sustainability to provide proficient support throughout the service, while continuing to enable younger clinicians to undertake breech clinic rotations and consolidate their own practice. The components of what the £10,213 entails are outlined below. Where some of these competencies are already acquired, the cost required to achieve proficiency will be less.

Table 1: Costs associated with achieving breech proficiency through a breech clinic rotation

Training to undertake presentation ultrasound scans				
	hours	cost (GBP)	total (GBP)	comment
Online or half-day theory course	3.5	62	217	
10 supervised scans	3.5	62	217	Half-day in clinic with breech specialist
Cost of online training course			100	
Cost of acquiring proficiency with counselling / birth planning				
Observation	3.5	62	217	Half-day shadowing in clinic
Supervised practice	3.5	62	217	Half-day in clinic. Trainee continues to have access to breech specialist midwife and lead obstetrician for support.
Training to acquire proficiency in facilitating physiological breech births				
On-line theoretical training	9.5	62	589	Current length of PBB online training package.
Hands-on training day	7.5	62	465	Most people need in-person training to practice manoeuvres and for repetition required for adult learning.
Supervised births (10 x 8 hours) *	80	62	4960	Based on 5 hours at birth + 1 hour travelling + 2 hours spent on-call
Cost of training package			100	Current cost of PBB in-person and on-line training package
Time spent delivering training	8	62	496	Delivering 2 hours of mandatory training activities once per quarter
Additional counselling & support from specialist	8.5	62	527	Based on 30 minutes additional counselling and 8 hours of birth attendance, for 5/10 births
		TOTAL	£10,213	

** Approximately 3-4 of these births are likely to end in in-labour CB. Decision-making around when a CB is required to keep the birth safe is very important. It is also even harder to come by in an age when most in-labour CB are performed for the indication of 'breech presentation.'*

The cost of a breech clinic rotation to produce the first proficient team member is approximately £1021 per birth. The available evidence indicates that it is likely to reduce the rate of neonatal admissions or death, although definitive safety information is still being gathered. The rate of neonatal admissions was 13%, including one neonatal death, for vaginal breech births occurring at 5 participating Trusts in the year before the OptiBreech 1 study (8/61), and 7.5% for vaginal breech births on the study (3/40); the serious adverse outcome rate among actual VBBs was 2.5% (1/40) and among intended VBBs was 1.4% (1/72).[50] In our Physiological Breech Birth evaluation, the rate of serious neonatal adverse outcomes among births attended by those who had taken the training was 0/21, compared to 7% (5/69) with those who had not.[37] Although these are small numbers, this is the only available prospectively-collected data about interventions designed to improve the safety of vaginal breech birth in the UK.

When a term baby is admitted to neonatal intensive care, the average length of stay is 3 days, at a cost of over £1000 per day.[51] Additionally, a 2017 study demonstrated that under standard care, vaginal breech births are over-represented in NHS litigation claims for cerebral palsy, comprising 12% of claims but only 0.4% of births.[32] Cerebral palsy claims are expected to cost at least £17,280,000 per damaged child. In the 2017 report, all but one of these were diagnosed late in labour (5/6). This reflects the risk of unpredictable and unavoidable breech births within services devoid of proficiency saturation and the potential value of supporting core staff to achieve this.

Who does a breech clinic rotation?

It is particularly useful and economically efficient to enable specialist registrars with an interest in obstetrics and midwives working in intrapartum settings to do a breech clinic rotation. Having completed a breech clinic rotation and associated competencies is a desirable skill for those who seek to apply for labour ward lead/co-ordinator or consultant obstetrician/midwife posts. Those taking up this training opportunity require the same personal characteristics and circumstances as

described above – an affinity (keen to gain breech skills and experience) and willingness/capacity to spend at least some additional time on-call during their rotation. Staff should apply for and be selected for, rather than required to complete, a rotation. The 10 births are not 'observational cases,' and staff applying should know they will be expected to facilitate the births, although they will be given support. Those applying will have often observed a few births already.

Evidence from other centres indicates that as more members of staff acquire proficiency, the confidence of women to choose vaginal breech birth and staff to offer this goes up, with better outcomes than those seen outside of these models.[43] At higher volume levels, sites may be able to support two or three people to share on-call responsibilities, and be less reliant on specialist on-call support, due to more staff with proficiency throughout the service. The duration of a breech clinic rotation and the amount of on-call time required to achieve it is context-dependant. These will be greater in the beginning stages of setting up a breech service and less as the service develops.

Two things are important to remember. First, proficiency is not ***just*** about experience. Physiological breech birth practice in 2022 is significantly different in terms of timings and situational awareness from historical breech practice. If it were not significantly different, we would not be expecting it to make a significant difference on outcomes. Senior midwives and consultant obstetricians may have acquired experience, but this experience has been within a very different approach to care; this can sometimes make it more difficult to learn new methods. Staff members should not be considered 'proficient' to support *physiological breech births* unless they have completed the enhanced training (ensuring research update) and been responsible for attending at least a few births using physiological breech birth approaches, with supported reflection from the breech leads.

Additionally, individuals acquire proficiency, not institutions. Where institutions have achieved good outcomes with high volume rates, we have observed a tendency to consider the team or hospital to have proficiency. Adverse outcomes have been observed when, for example, a locum obstetrician is attending and the labour ward co-ordinator is unavailable. When a physiological breech birth in in progress, the question should always be asked: Do we have someone at the birth who has completed physiological breech birth proficiency training or a breech clinic rotation? If not, do we have someone who has completed the enhanced training? The most experienced person

should lead a mini-training review for the team during handover/ward rounds, to ensure all members of the team are familiar with the basic principles of physiological breech birth.

To facilitate this, the OptiBreech team has launched a monthly 3-minute update, which can be accessed using the QR code to the right.

What about the people who cannot be on-call?

Some people are concerned about this model because they prefer that all members of staff acquire breech experience. Some would like to acquire this experience themselves but their personal circumstances do not permit on-call work. For some, it feels unsafe to rely on 'on-call' members of staff, who may not be available 100% of the time. Or those willing to be on-call may be more junior than staff who are not able to be.

We cannot avoid the numbers: In our post-training evaluation, in all but one setting less than 10 vaginal breech births occurred within the following year.[37] It is not possible to spread this across the labour ward staff ad hoc and end up with any individuals who have truly consolidated their practice. A few may find themselves unexpectedly responsible for the occasional rapidly progressing vaginal breech birth. While many of these births have good outcomes, without additional support, some will not, and exposure to VBB will result in a desire to avoid it at all costs. Over time, these chance occurrences may amount to 10 or more births, but even if they are good outcomes, their occurrence unexpectedly, over a longer period, does not enable the same level of deliberate practice, reflection and consolidation.

The needs of women and birthing people must also be prioritised. At the one hospital in our evaluation where the number of vaginal breech births post-training was over 10 and increased from 0 to 13 compared to the previous year, 6/13 births were attended by one midwife who put herself on-call for women planning a VBB.[37] At OptiBreech sites with a breech specialist midwife or obstetrician who works flexibly to attend VBBs and/or works out of a dedicated clinic, demand for VBB has been higher, on average 1/month.[50] Our research indicates knowing that their birth is likely to be attended by someone with training and some experience matters a lot to women. More

women feel comfortable to plan a VBB, even if they are not guaranteed this 100%.[34] The VBB rate then goes up, with good outcomes, and more learning opportunities are available to more staff – because there is always more than one professional present for a VBB. Other professionals develop situational awareness for future births, even if they do not themselves complete a breech clinic rotation.

All midwives and obstetricians should receive a mandatory update on breech skills on an annual basis, and in hospitals supporting breech clinic rotations these should be delivered by the specialist leads or those on rotations. Increasingly strong evidence indicates that planned vaginal breech births are safest when attended by 1) fully proficient attendants who are functioning as specialists; or 2) fully trained professionals who have deliberately practiced their skills in preparation for a planned vaginal breech birth they will be attending. It is in the interests of the service to support individuals who can undertake the full breech clinic rotation to consolidate their learning, wherever possible.

> Well, it's obviously not about providing vaginal breech births only, it's about providing the whole counselling system, which is much more, much more efficient than anyone counselling.
>
> When they've had counselling, when they first knew they had a breech baby and then when they come to talk to us, they feel a huge difference with the attitude towards breech. And the way we give them confidence that they will be supported with their choice. They understand all the risks that we talk about, but maybe mainly because we have more time for that, we provide more time. And antenatal clinic, especially if it's a crowded clinic, you can't give more than like 10 to 15 minutes if that if that's possible to you know to talk about the whole condition of the woman's pregnancy, let alone just about breech. But when they come, we usually give them enough time and well, all the time they need.
>
> - *OptiBreech Lead Obstetrician*

Maximising economic efficiency

During their breech clinic rotation, professionals may only counsel a few women per week. If these individuals normally work scheduled shifts, they should receive time in lieu, if worked outside of their standard shifts. They may also be released from their shifts for the time they are covering clinic or delivering mandatory training updates, with the expectation that they will return to their regularly scheduled area of practice when the clinic or breech session is complete. The breech specialist midwife may cover for other members of staff to enable them to be released from shifts on labour ward or birth centre, for example, if they would normally be working in clinic that day.

Allocating those completing a breech clinic rotation to a day per week in clinic, with no other duties, will lead to time wasted.

Other considerations

Role of the on-call obstetric team

Close, trusting multi-disciplinary working is important to get this right. Close working with obstetric staff is essential, as in any higher-risk birth, because a CB is required approximately 20-30% of the time in active labour to maintain the birth's safety. An instrumental delivery could also be required. Obstetric consultants should ensure that, if they attend VBBs rarely, they review the evidence around management of second stage (https://vimeo.com/653178337) and simulate application of forceps during the labour (https://vimeo.com/649902512).

> "I feel like we've got quite a strong team, because we've got [the Breech Specialist Midwife] and [another midwife] who have a lot of experience. And then we've got some other midwives who've got a bit of experience, but are very enthusiastic, and then consultants, we've got three of us. I think the problem with the team is it's hard to involve the junior doctors, the trainees. And I feel one of the issues that hopefully we'll get a bit better once the team is a bit more embedded is us supporting the specialty trainees because really, they're the people … whilst it's brilliant have midwives during physiological breech birth … they're often the people that are called to see women. So if you're called to see a woman in labour, that's going to be the registrar and the first words that come out of the registrar's mouth, again, have a massive influence on what mode of delivery, I feel. And also the knowledge of the specialty trainees in terms of things like a dropped foot. I mean, the number of times we see written in the notes, 'footling breech therefore section', because people haven't understood."
>
> - *OptiBreech Lead Obstetrician, Site 101*

Although many obstetric staff already have some experience in term breech birth, our strong recommendation is that obstetric staff complete the same training and documented attendance at 10 breech births to be considered fully proficient. Their training up until this point will have been very different, and epidemiological evidence does not indicate that training is sufficient, even if an individual's results have been good. RCOG guidance indicates that all trainees should be supported by the consultant obstetrician until they are signed off as competent for autonomous breech practice.[52]

External Cephalic Version (ECV) and other breech turning modalities

These may or may not be incorporated into the roles of your breech team members. In some Trusts, these are provided by the same team. In others, they are provided by other members of the maternity care team. Providing a dedicated ECV service appears to increase the effectiveness of the procedure.[53]

The important thing is that the ECV service be provided on the same day as the clinic, so that women and their partners are not needing to return for multiple appointments. This is particularly important for disadvantaged families, where women or their partners may need to take unpaid leave from work to attend appointments at the hospital. It is also important they be able to receive counselling from the breech clinic staff if an ECV attempt fails.

What about continuity for planned CB?

As planned CB for breech presentation does not require special skills in breech presentation, this can be provided by the person's named or continuity midwife. Because the intrapartum breech team can be required to attend a VBB at any point, it is important that they not be tied up in too many elective procedures. However, it may be appropriate for the breech team to provide continuity in particular cases, or the team may be organised to accommodate this.

If an in-labour CB occurs while a member of the breech team is caring for a woman, for which they have come in on-call, they should support her through the CB unless it is unsafe due to number of hours spent at work or they have other shift commitments that this would compromise. Careful communication with the labour ward co-ordinator is essential.

Approaches that do not appear to be effective

Here we describe approaches that are commonly attempted, that do not appear to result in effective or sustained cultural change.

One-off training in balanced counselling

The problem of imbalanced counselling has been identified in multiple studies[54] and our own research.[34,50] While some have suggested this can be addressed by providing training to staff, there is no evidence to indicate that this results in a change in practice. Qualitative evidence in the OptiBreech 1 study indicates that this may be due to time pressures outside of a dedicated clinic, as well as personal biases. Additionally, some of our participants have explained, balanced counselling is itself a complex clinical skill requiring practice and repetition to develop. This accords with previous research.[55]

One-off training day for staff

As explained above, new clinical skills learned in training days erode within a few months if not consolidated.[56] Without a plan to ensure staff who attend training are prioritised to attend breech births, involving at least some element of on-call working, consolidation is unlikely to occur. While MDT training days may have a role in promoting cultural change through deeper understanding of how the physiological breech birth approach works and the evidence that supports it, evidence from our evaluation and the OptiBreech 1 study indicates that it is most economically viable when combined with a plan to ensure those who attended the training attend vaginal breech births in practice, with support.

> "In terms of the network, you know, just chatting to other people involved in the trial via the webinars, or we've got a kind of WhatsApp group with other midwives in it, you know, that I can tap into for just network expertise whenever I'm not sure about something because that's kind of what you want. I think. As a clinician, you know, when I don't feel that I can ask my local network or my usual network of consultants, because they're not interested or experienced in vaginal breech birth."
>
> - *OptiBreech Lead Consultant, Site 128*

Relying on the on-call obstetric consultant to be the lead at vaginal breech births

Evidence indicates that a significant number of obstetricians prefer not to offer the option of vaginal breech birth, due to lack of confidence, training and the pressure of cultural norms.[13,57–66] Allowing a woman's ability to plan a breech birth to be reliant on the personal preferences of the consultant obstetrician alone is an unreasonable and ineffective model of breech care. Achieving a status quo where all consultant obstetricians have ample experience and

confidence is impossible in the UK; it is not even possible in Ghana, where access to CB is less easy and most providers attend 1-5 VBBs per year.[67]

Re-introducing breech births to a service will require an MDT approach. Our experience has been that midwives are more likely to complete an on-call rotation to deliberately develop their competence and confidence. Once this has been completed, this should be recognised as part of the team's skill mix and included in decisions about whether the team are able to support a VBB attempt. Obstetric staff can also undertake a breech clinic rotation, especially during time periods where they are already rostered on labour ward. This may be particularly valuable for developing counselling skills in a relaxed environment that can be called upon in future urgent situations.

Encouraging all members of the team to view breech birth as a 'normal' skill

We can no longer support this with evidence or our experience. Safe facilitation of vaginal breech births is a complex clinical skill, rarely used unless individuals work flexibly to attend breech births. Evidence indicates professionals who willingly put themselves 'on-call' for breech births undertake deliberate practice learning activities to prepare for them,[38,39] and we feel this is the key mechanism that increases safety. When professionals are expected to be responsible for breech births because they happen to be on duty at the time they occur, this does not occur. It may be possible to replicate the deliberate practice learning in part through mini-updates when women are in labour, when progress permits this to occur. But this remains to be tested.

Similarly, it is less effective to use on-call specialists to support inexperienced members of the maternity care team who have not completed physiological breech birth training and are not anticipating being at upcoming VBBs, especially in the early days of cultural transition towards an OptiBreech approach and a proficient team. This is because the approach may differ significantly from what staff have been used to. They are therefore less able to integrate their experiences and complicated births may create additional anxiety. However, staff keen to learn skills may choose to undertake training and/or put themselves forward to support births by scribing and other assisting activities.

Training all labour ward co-ordinators to be 'the breech team'

This strategy has been attempted in several locations but has not resulted in sustained cultural change; nor is there evidence of an improvement in safety. Labour ward co-ordinators are not always at liberty to attend VBBs throughout second stage. In addition, affinity ('liking') for breech births is as variable among midwives as it is between obstetricians. It is safer to train labour ward co-ordinators to do what they do best – maintain situational awareness – rather than train them to be the lead professional. For example, many adverse outcomes occur because the team becomes task focused on the emerging breech baby. As a result, awareness of fetal heart rate monitoring slips. In case reviews, it is common to observe that no accurate fetal heart rate was obtained for 20 or more minutes immediately prior to emergence, or that the heart rate observed is accelerative during contractions and likely maternal. In other cases, the baseline has risen significantly throughout second stage. Yet management of the breech birth does not seem to have shifted to more active management. The team considers these anomalies 'normal for breech' and maintains a 'hands off the breech' approach, avoiding interventions to expediate the birth in awareness that the fetus is likely already hypoxic.

Training labour ward co-ordinators to take the 'lead role' in vaginal breech births can sometimes mean that no one is maintaining the 'helicopter role.' When a site is re-introducing a vaginal breech birth service, labour ward co-ordinators and consultant obstetricians should all receive training on maintaining situational awareness, and obstetric staff should have an opportunity to rehearse safe forceps application. This is where planned breech births differ significantly from undiagnosed breech births.

Relying on the experience and confidence of senior midwives to support vaginal breech births

We cannot emphasise enough how significantly the OptiBreech approach differs from the 'hands off the breech' approach many experienced midwives and obstetricians have been taught. Those who have had poor outcomes with the 'hands off the breech' approach often avoid VBB wherever possible. Those who have had good outcomes tend to attribute them to the success of the approach rather than luck. They may rely on this experience rather than undertake deliberate

practice and tend not to follow the algorithm[35] in the same systematic way as more novice practitioners. The desire to reconcile new methods with the 'hands off the breech' approach leads to a tendency to delay intervention.

Because senior midwives and consultant obstetricians often project a rightfully-earned air of confidence, they are often assumed to be more experienced than they are by both women and colleagues. For clarity, we encourage everyone to speak of their experience in relationship to the proficiency criteria and to ask their colleagues for specific support, such as maintaining awareness of fetal well-being around the time of emergence.

The results of the Term Breech Trial should be assumed to be generalisable[68] unless different methods are used. PROMPT training can offer valuable human factors simulations, but clinical evaluations have not included VBB outcomes.[69] We have some limited data for improvements when OptiBreech-trained and/or proficient attendants are leading the birth, as described in the training evaluation.[37] A full evaluation powered for important clinical outcomes will take some time to achieve, and we hope that those using this approach will consider contributing to our database.

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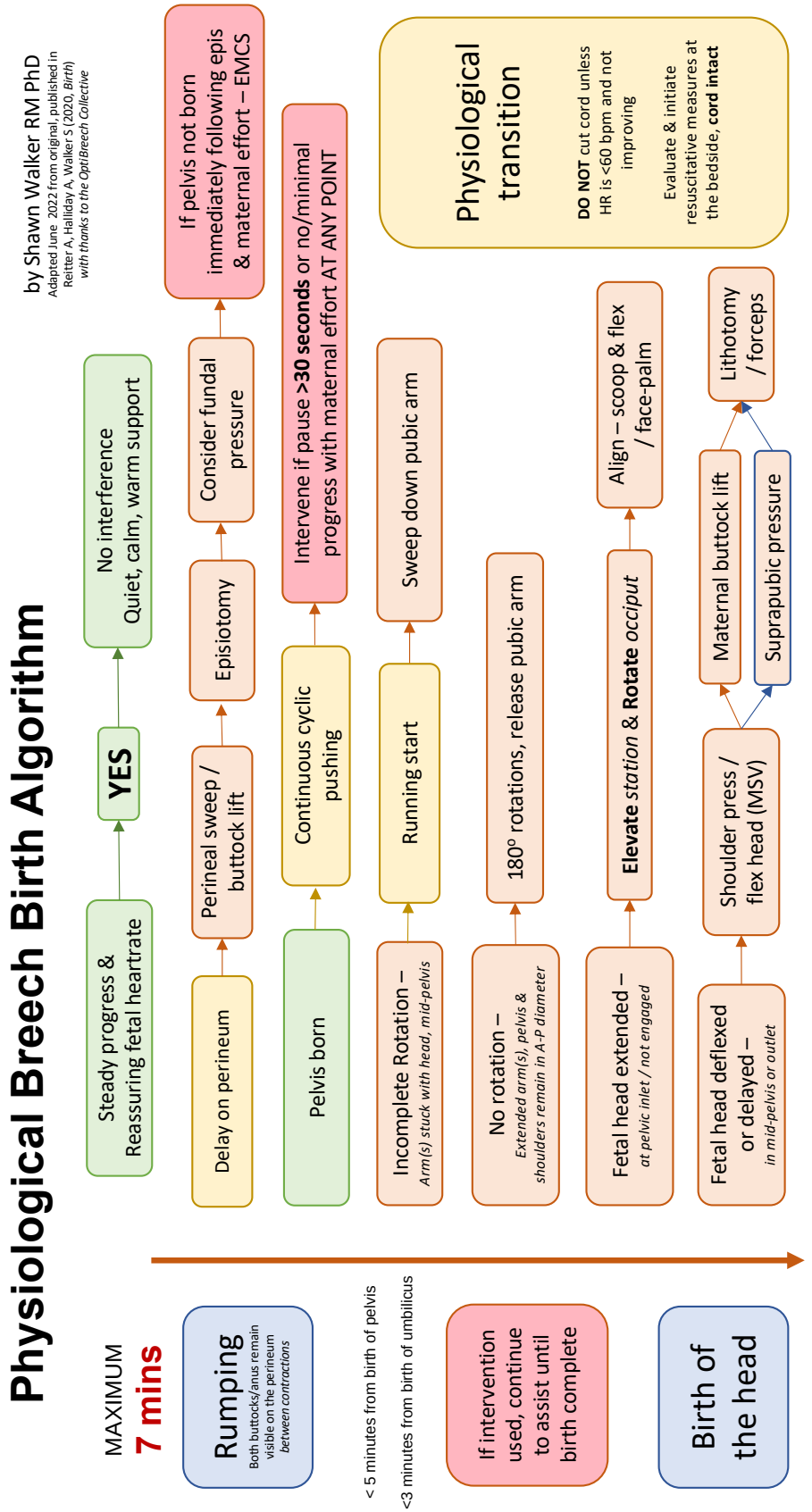
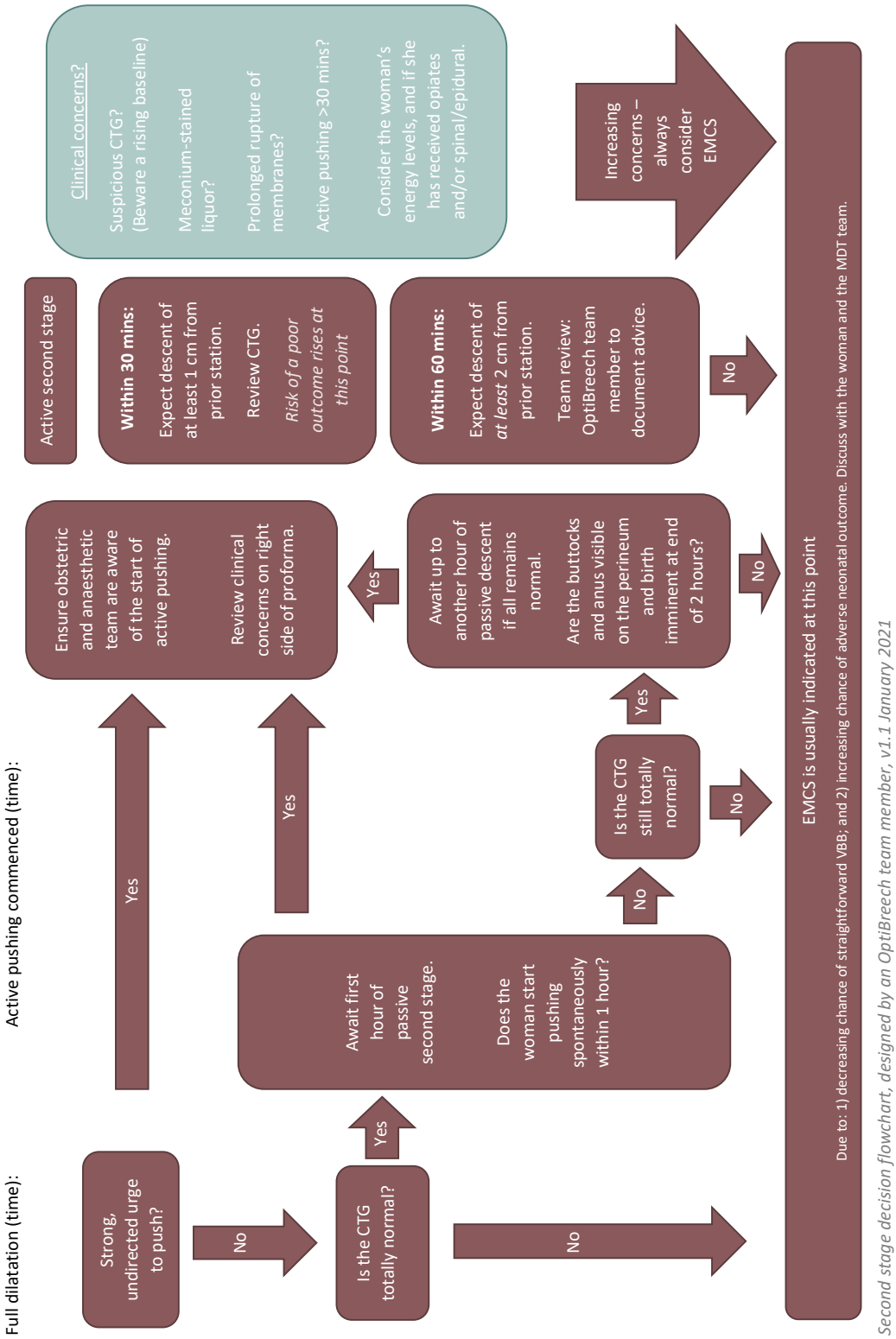
Appendix 1: OptiBreech Physiological Breech Birth Algorithm



Appendix 2: OptiBreech Second Stage Algorithm



Second stage decision flowchart, designed by an OptiBreech team member, v1.1 January 2021

Appendix 3: Proficiency Achievement Record

Proficiency Record: Physiological Breech Birth

This template will help you to record your personal training and experience with physiological breech birth.

Name:

Phone:

E-mail:

Training and updates

Standard for practice as lead professional at physiological breech births[1,3]: **6 hours evaluated training**
The 6-hour standard should be met with training that is informed by the Standards[1] and Principles[2] referenced below. It should be focused on vaginal breech birth and not taught as part of an obstetric emergencies training package. [5] And it should have a published evaluation of outcomes.[6,7]
Further updates may include attendance at conferences, reading primary breech research publications, watching videos and reflecting with colleagues, or attendance at study days based on different standards, so that your practice is informed by a wide variety of perspectives and evidence.[1,2,4]

Date	Activity & Provider	Details

Attendance at vaginal breech births

Standard for practice as lead professional at vaginal breech births[1,3]: **10 vaginal breech births**
Attendance at vaginal breech births where one is the lead professional or present in a supportive role all contribute towards development of competence and maintenance of proficiency. Everyone contributes to teamwork and decision-making. Similarly, all breech births contribute, including preterm and twin births.

MAINTENANCE OF PROFICIENCY: Standard for practice as lead professional at vaginal breech births[1]: **3 births/year**
Where it is not possible to maintain proficiency by attending 3 vaginal breech births within a year, it is acceptable to fulfil this requirement by teaching, as described below[3,4]

Experience with complications and manoeuvres

Exposure to complications is variable and therefore cannot be the only source of exposure and practice. The development of competence is also often marked by problem solving that is based on skills and knowledge but does not always conform exactly to textbook description of typical events.[3]
Professionals are encouraged to keep a record of how they resolved births where delays were identified.

Date	Initials of woman	Type of breech	Birthing position	Your Role (lead, support, etc.)	Details (description of manoeuvres, interventions, features of labour)	Outcome

Date	Initials of woman	Type of breech	Birthing position	Your Role (lead, support, etc.)	Details (description of manoeuvres, interventions, features of labour)	Outcome

Teaching experience

Standard for practice as lead professional at vaginal breech births[4]: **at least 1 teaching episode/year**
Teaching breech skills to colleagues and/or students has the following effects:

1) It accelerates and improves the critical ability to recognise and resolve complications.[3,4]
2) It makes breech-experienced colleagues more visible within a maternity service, so that less-experienced colleagues know who they can call for help.[4]
3) It cascades learning from a small number of events throughout a service.[3,4]

Ideally, team members attending vaginal breech births as lead professionals should present a reflective review, formally or informally, to a portion of their colleagues. This can be as simple as a 5-minute run-through of the birth, including the indications for any interventions and an opportunity to perform any manoeuvres used in a doll-and-pelvis simulation. Teaching can also include formal teaching to students or colleagues.

Date	Details

Continuity

There is no minimum standard for provision of continuity, but some evidence indicates that it may impact care provision positively, in ways we do not yet fully understand.[10] The area below can be used to reflect on any episodes of care where you provided antenatal counselling and attended the subsequent birth, either intentionally or by happenstance. Please reflect on how/whether this continuity influenced the care episode, either for the woman or yourself, and why.

Date	Details

The references used to support this template include but are not limited to:

(**Standards**)[1] Walker S, Scamell M, Parker P (2016) Standards for maternity care professionals attending planned upright breech births. *Midwifery*. 34:7-14.

(**Principles**)[2] Walker S, Scamell M, Parker P (2016) Principles of physiological breech birth practice: A Delphi Study. *Midwifery*. 43:1-6.

(**Acquisition of Competence**)[3] Walker S, Scamell M, Parker P (2018) Deliberate acquisition of competence in physiological breech birth: A grounded theory study. *Women & Birth* 31(3):e170-e177.

(**Expertise**)[4] Walker S, Parker P, Scamell M (2018) Expertise in physiological breech birth: A mixed methods study. *Birth.* 45(2):202-209.

(**Training**)[5] Walker S, Breslin E, Scamell M, Parker P (2017) Effectiveness of vaginal breech birth training strategies: an integrative review of the literature. *Birth*. 44(2):101-9.

(**Evaluation 1**)[6] Walker S, Reading C, Silverwood-Cope O, Cochrane V (2017) Physiological breech birth: Evaluation of a training programme for birth professionals. *The Practising Midwife*. 20(2): 25-8. (Extended Author Version)

(**Evaluation 2**)[7] Mattiolo S, Walker S. Physiological breech birth training: a multimethod pre-post intervention study. *Birth*. 48(4):558-565.

(**Algorithm**)[8] Reitter A, Halliday A and Walker 2 (2020) Practical insight into upright breech birth from birth videos: a structured analysis. *Birth* 47(2):211-219.

(**Face-to-pubes rotation**)[9] Walker S and Spillane E (2020) Face to pubes rotational manoeuvre for bilateral nuchal arms in a vaginal breech birth, resolved in an upright maternal position: A case report. *Birth* 47(2):246-252.

(**Continuity of Carer**)[10] Spillane E and Walker S (2019). Case Study Supporting Continuity of Care Models for Breech Presentation at or Near Term. *The Practising Midwife*, December:36-37

This template was developed by Dr Shawn Walker. She is funded by a National Institute for Health Research (NIHR) Advanced Fellowship for the research in which this template is used. More information is available from https://optibreech.uk.

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