

Implementing PERIPrem – Quality Improvement

Essential ingredients for making breakthrough
Improvements as a perinatal team

What is this document for?

This document is to support you as you set up your PERIPrem team within a hospital trust, or if you are supporting a perinatal team or teams to embark on PERIPrem. It is designed to share the learning and experiences of designing and implementing PERIPrem in the South West and West of England and the national PReCePT Study.

We have made all of the tools and resources available for use on our PERIPrem website, including a range of webinars, share and learn sessions and videos featuring our parent partners. It also features QI webinars that explain the principles of QI in relation to perinatal improvement. You may wish to host your own “Share & Learn” Sessions or identify other ways to train and engage perinatal staff in the eleven PERIPrem Bundle Elements.

As we are sure you are aware, QI is ultimately trial and error and this is best facilitated in a culture where innovation, creativity and intuition are able to thrive. To do that, we need to build strong multidisciplinary teams that feel psychologically safe to test and push beyond the regular approach to delivering health care. A key lesson from PERIPrem is the more time you are able to invest in building and nurturing highly functioning perinatal teams, the more benefits will be seen across the system.

With this in mind, information presented here is not prescriptive, rather the key themes and recommended processes to consider as you begin your PERIPrem journeys. The real successes of PERIPrem come when teams embrace designing and implementing the bundle to fit the culture and priorities of the unit.

PERIPrem Perinatal QI Glossary

Capsule Approach

You will see reference to the “capsules” of Process, Training and Education and Communication and Engagement. This is an approach refined through the implementation of PReCePT and lays out the three domains you need to take action in when making improvements within a unit. Put simply, for every improvement you design, ensure you have identified what needs to happen in each of the three capsules:

1. Process

This includes any changes to processes within the unit or the introduction of new ones. For example, when you are implementing the PERIPrem Passport, you will need to consider the steps in the process that trigger it being started for a woman in preterm labour. If you are implementing a new clinical intervention consider the new processes for prescribing and administering.

2. Training and Education

For every change that is made to a process, there will be a need to train or inform perinatal team members. Education could include a formal session, or signposting to an existing PERIPrem Share and Learn session, regardless, listing the approach needed will help to ensure that there is a join up approach across improvements.

3. Communication and Engagement.

Once you have planned to make improvements, identified how to train or educate team members, you will need to communicate effectively to a large number of staff working

different patterns. Think about how you will ensure that the hardwork you are doing is understood. You may wish to set up a PERIPrem board for example, but using this capsule to think through the best way to engage and involve everyone will ensure there is a systematic approach.

Quality Improvement Approach

We selected [Life Qi](#) to support the design and implementation of PERIPrem as a comprehensive platform to guide you through QI. Spend some time deciding whether Life Qi is a good fit for your PERIPrem team, you may already have experience of using it for PReCePT and other QI projects. If you do decide to use it, we have produced driver diagram templates for each of the bundle elements, including measures as well as the function to input PDSA information.

PERIPrem QI Coaching

One of the key elements of PERIPrem in the West and South West of England was the provision of perinatal specific Quality Improvement support through a range of methods, including coaching. This is not essential, but an aspect of the programme that we recommend. You may wish to find a QI coach who is within a hospital trust, or an experienced perinatal team member. The most important thing to remember is that the QI coach can act as a link between teams who are also embarking on PERIPrem if you are supporting a region or cluster of teams. If you are embarking on PERIPrem as a

perinatal team, you may wish to find someone within your trust who can support you to develop as a team and to get started.

The role of the PERIPrem QI coach is to support all aspects of the design and implementation of PERIPrem within a trust. You may be reading this document as a nominated QI coach for PERIPrem, or a team looking for a PERIPrem QI coach, either way the following information can help you to understand more about the role and how the QI coaches are placed to support teams.

The main point to grasp is that the way that QI coaching works for a team will be dependent on the level of QI experience and the type of input needed. There is no fixed description of the support that can be given and the coaching should be in line with the needs of the perinatal team.

The QI coaches can offer support and advice on all aspects of the QI planning, design and implementation process. They can also offer insight into issues units may face by drawing on learning and experience from previous QI projects as well as supporting teams to work together to share experiences.

QI coaches can help facilitate unit based QI workshops, problem shoot, find resources, share experiences and demonstrate QI methodology. Ultimately the direction the working dynamic between the coaches and the PERIPrem teams take is driven by the needs of the clinical units and will differ due to a range of different factors. The PERIPrem QI coaches can be asked to support teams by:

- Assessing the level of QI experience and capability within a team to identify key areas for coaching and support
- Sharing QI resources and PERIPrem project tools to support the design and implementation process
- Support teams to create bespoke unit level action, implementation and embedding plans
- Facilitate unit based QI workshops, problem shoot, find resources, share experiences and demonstrate QI methodology.
- Support teams to form a collaborative with other perinatal teams to form a "PERIPrem Community"
- Support PERIPrem Community joint working and communication through hosting Share and Learn Sessions, Events and Social Media.
- Support teams to develop an action plan for sustainability and adoption beyond the involvement of QI coaches

How to embark on PERIPrem

Every improvement journey is different and will need to be planned to work with the culture of the unit and priorities according to your baseline data. Based on our experience, we have identified the steps to implementing PERIPrem, and we suggest using it as a guide to help you set out your approach. Note, this is not an exhaustive list, rather a suggested approach.

Scope

- Develop a solid understanding of PERIPrem context, lessons learnt and examples
- Understand PERIPrem within context of intended unit
- Explore capacity, potential demands (seasonal pressures etc)
- Identify senior support and buy in, scope whether there is financial support for implementation
- Form PERIPrem team: Obstetrician, Midwife, Neonatologist and Neonatal Nurse leads at a minimum
- Recruit parent partner (best practice)
- Assess QI capacity and identify training / support to meet need

Plan

- Baseline performance across 11 PERIPrem Bundle Elements
- Identify QI platform if required i.e Life QI
- Assess existing unit clinical guidelines across each Bundle Element
- Identify Bundle Elements that are not currently in use in unit, follow unit procedure to onboard new interventions
- Prioritise Elements for implementation (PERIPrem is designed to be implemented in full; we recommend staging implementation in line with capacity)
- Complete: Readiness for Change Tool, Snapshot, Action and communications plans
- Review PERIPrem Passports for unit fit and identify translation needs
- Ensure team are confident in PERIPrem Data Optimisation Tool and identify data optimisation champions to own data input

Implement & Measure

- Promote PERIPrem key aims and messages within unit amongst all perinatal staff
- Train all staff on using PERIPrem Clinical and Family Passports including processes for triggering pathway, passport storage, usage and transition to data optimisation champions
- Promote PERIPrem Website and signpost to "Share and Learn Sessions"
- Embark on PDSA cycles for Bundle Elements
- Ensure PERIPrem Optimisation Infographics are displayed in unit monthly
- Use PERIPrem learning log, snapshot tool and capsule summary to capture learning from process

Sustain & Embed

- Continue with PDSA cycles using the PERIPrem Optimisation Tool to support cycles
- Use PERIPrem Debrief tool to identify further opportunities for improvement
- Once continued improvements are sustained use the PERIPrem Bundle Element Embedding Tool to horizon scan and plan for risk mitigation

1. Scope

In the first instance, we suggest you spend time getting to grips with how PERIPrem started, the tools that can be used and the bundle elements. The following resources are designed to give you the background and context into PERIPrem and Perinatal QI before you get going. They are also useful for explaining the case for change to team members. We recommend dedicating time to identify your priorities as a team, and setting your goals in alignment with any potential demands on capacity. We have also included a video on Perinatal Team Dynamics, this will help you as you form as a new perinatal team, or if you will be supporting teams to improve their functionality.

- [7 Steps to improvement poster](#)
- [Process Mapping document](#)
- [PERIPrem in Numbers Infographic](#)
- [PERIPrem Briefing Paper](#)
- [PERIPrem 11 element poster A3](#)
- [PERIPrem Bundle Gestation and Ventilation Guide](#)
- [Team Dynamics Video](#)

2. Plan

These next tools are to be used to set up PERIPrem within your team and if you are supporting units. They will aid baselining, building your team and identifying what bundle elements you are performing well in as well as those you want to put further work into. The tools are also designed to support you as you move into implementation and will aid in keeping a record of what has worked well and what hasn't.

PERIPrem Readiness for Change/ Identifying Barriers and Facilitation Tool

Thinking through potential facilitators and barriers systematically will allow you to identify how to overcome or embrace them. This tool lists all of the domains you will need to consider to assess how

ready you are as a team or unit to embark on your improvement journey, and then guide your thoughts to what you can put in place to improve your system. This is a great first team activity, as it can align your thoughts as a newly formed group and encourage wider systems thinking.

PERIPrem Unit Snapshot Tool

This tool is designed to help you as a team take stock of where you are on your improvement project. You can identify hurdles to progress and use the "dartboard" diagrams to plot hurdles to identify which ones can be overcome and prioritised. You can use this tool regularly throughout your journey to refocus on priorities and to examine where you need to dedicate more effort.

PERIPrem Team Action Plan

This template will capture the aims and objectives and actions needed for your team to deliver in order to design and implement each PERIPrem Bundle Element. Please complete one of these for each Bundle Element. Used as a supportive tool to map out how to bring your project plan to life by breaking it into identifiable steps, where each step is assigned to a team member to complete on a set timeline. This will help you share with others what you are aiming to achieve and has the added benefit of increasing colleagues' sense of ownership, cooperation and buy-in, and helping you to stay on track.

PERIPrem Capsule Tool

This tool is designed to capture a full description of your project across the "capsules" or domains of; process changes, training and education, and communications and engagement. Whilst you are still working within Plan-Do-Study-Act (PDSA) cycles, this document is intended to be updated. You can save versions of this tool as you go to document your progress.



PERIPrem Communications Plan

This tool enables you to effectively deliver information to everyone involved in PERIPrem. Use this tool to identify and prioritise stakeholders, what they need to know and how best to communicate this information to them. Communications plans can be used in times of crisis, but they are also used when pitching new initiatives or launching new projects.

PERIPrem Engagement and Co-production strategy

We have included the Engagement and Co-Production Strategy that we used to deliver PERIPrem across the West and South West Region. If you are working at a strategic level, i.e. supporting a number of trusts at a regional level to embark on PERIPrem, you will find this helpful to consider the different aspects and approaches to engaging a cohort of units.

3. Implement and Measure

These are the key PERIPrem tools that you will need to implement the bundle in your unit.

PERIPrem Clinical Passport

This document is to be used by each perinatal team for every preterm born in the South West region, and is designed to serve both as a prompt on the PERIPrem Bundle as well as data capture tool. We encourage you to start using this within your teams immediately. If you use non paper based systems in maternity we recommend you dedicate time to identifying how to implement the passport within existing structures.

- [PERIPrem Clinical Passport \(Colour\)](#)
- [PERIPrem Clinical Passport \(B&W\)](#)

PERIPrem Baby Passport

This document is to be given to the parent of every preterm born in the South West region, and is designed to help inform and fully involve parents in the care of their preterm baby by outlining the relevant PERIPrem Bundle elements their baby should receive. We encourage you to start using this within your teams immediately.

- [PERIPrem A4 Baby Passport \(B&W\)](#)
- [PERIPrem A4 Baby Passport \(Colour\)](#)
- [PERIPrem A5 Baby Passport \(B&W\)](#)
- [PERIPrem A5 Baby Passport \(Colour\)](#)
- [PERIPrem A4 Baby Passport Arabic](#)
- [PERIPrem A4 Baby Passport Bengali](#)
- [PERIPrem A4 Baby Passport Lithuanian](#)
- [PERIPrem A4 Baby Passport Polish](#)
- [PERIPrem A4 Baby Passport Portuguese](#)
- [PERIPrem A4 Baby Passport Romanian](#)
- [PERIPrem A4 Baby Passport Somali](#)
- [PERIPrem A4 Baby Passport Turkish](#)

PERIPrem Optimisation Tool

Recognising that you will need access to unit level data immediately, this is a very simple tool that will enable you to collate and share anonymised data from the PERIPrem Passports, in order to show how you are performing as a perinatal team in real time. The Optimisation tool will need to be returned at the end of each month.

The Optimisation tool will also generate a printable infographic for each element that you can use to demonstrate the progress on each bundle element as well as your overall optimisation target.

- [PERIPrem Bundle Optimisation Tool](#)
- [PERIPrem Data Summary Guide](#)
- [Optimisation Tool Webinar](#)
- [Using Data Video](#)

PERIPrem Debrief Tool

Reviewing progress as you go and identifying further opportunities for improvement (making small scale changes through PDSA cycles) is central to designing a version of the

PERIPrem Bundle that is right for the culture and processes of your unit. The following tool will support the reviewing of patient cases to inform further improvements.

PERIPrem Learning Log

The purpose of the learning log is to record reflections and learning from implementation of the PERIPrem bundle elements. It offers a template in how to record in detail the steps taken for each Plan-Do-Study-Act (PDSA) cycle. Reflecting on implementation and outcome will support the next round of improvements.

4. Sustain and Embed

We want to ensure that improvements we have made that contribute to the optimisation of preterm care are sustained and embedded, that they become “steady state” or business as usual. Sustaining change won’t happen automatically and PERIPrem needs to keep momentum if it has a chance to become embedded in your system. To remain effective improvements need to be responsive to changes in the environment (staff changes / structural changes) and the best way to prepare for this is to plan and horizon scan. The tools allow you to anticipate challenges that may impact improvements and help you to identify actions to mitigate the risks. This may include formally adopting PERIPrem refresh training into existing training processes, or committing to the PERIPrem Optimisation tool beyond the active phase of improvement.

Implementing PERIPrem – Steps for success

The following is a description of the key lessons learned from our time with PERIPrem so far. We have included them here so that you can use our learning to inform your PERIPrem journey.





Step 1 - Embrace QI

Quality Improvement methodology provides a framework through which you can bring together your perinatal team, promote strong leadership, enhance partnership and collaboration, and grow evidence based innovation to improve the experiences and outcomes for preterm babies. However, this relies on the enthusiasm of your Perinatal team, accurate and realistic planning, risk and issue forecasting, and trust and team buy in. PERIPrem QI coaches can support this by sharing QI knowledge and techniques, offering hands on support and promoting collaboration between units. It is worth remembering however that the final and critical missing ingredient is the full participation and buy in of the clinical members responsible for the design and implementation of PERIPrem.



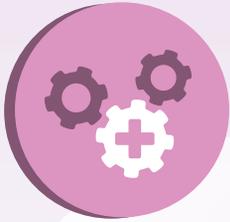
Step 2 - Invest in Partnership Working

No midwife, neonatal nurse, neonatologist or obstetrician is an island, and there is strength in numbers. You cannot design a cross system improvement project without representatives from all of the parts of the pathway. Partnership and collaboration are at the heart of the PERIPrem approach. Working together to identify all of the key areas and to problem solve from the points of view of the parents, midwives, neonatal nurses and doctors as well as any other significant members of the team will support improvements that are efficient, innovative and long lasting. There is a wealth of resource available to support you develop as a strong perinatal team, including webinars on perinatal culture on the PERIPrem Website.

It is essential to spend time putting your team together, and developing ground rules for how you will work together. Think through what you will do if a team member moves on or is redeployed, and how you will maintain momentum. There will be times when you don't agree, what is the process for decision making?

Think about who your champions will be for PERIPrem. We supported a lead midwife and neonatal nurse to champion and project manage PERIPrem in our region, but in order for there to be meaningful improvements made, they need to be supported and empowered by the perinatal team. PERIPrem relies on a strong, highly functional perinatal team with equal input across specialities.





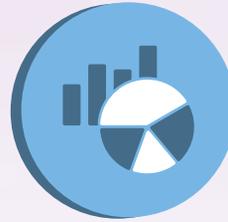
Step 3 - Mine the Microsystem; identify your barriers and facilitators

Taking time to view your units as unique microsystems and to understand the factors influence this is essential. You cannot take “PERIPrem off the shelf” and implement in your unit without recognising the ways in which your team, processes, layout etc could either be barriers or enablers to improvement.

For example, when looking at how to deliver training, there are many aspects to consider. Staff working on different rota's, different clinical backgrounds, capacity demands of a busy obstetric and neonatal unit, what training is already in place, all of these factors will impact whether you are able to engage and motivate people to change the way are delivering care. Thinking creatively and with the understanding and insight of a colleague “putting yourself in someone else's shoes” will support the development of a training programme that is innovative in its reach as well as impactful. Use your own experiences as a clinician and plan time to understand how best training is received by your team members.

This is all the more crucial when changing a clinical process or implementing a new element. Investing time in identifying what hinders success and what will facilitate it will result in changes that will be right for your team, environment, patients and families. This provides a solid understanding to launch the first test of an improvement using the Plan Do Study Act (PDSA) model of QI.

Successful quality improvement is more likely when the solution is developed in line with the needs of the people using and delivering it, rather than the tailoring of a process to fit the environment.



Step 4 - Understand the Numbers

The data that is generated throughout an improvement journey isn't just a marker of success or an indicator of slow progress. Understanding trends and investigating increases or decreases will give context to the PDSA cycles and inform the way changes are made to the process in the next cycle of improvements.

The data also serves as an intervention and an impactful communication tool that can demonstrate your progress monthly. It will highlight the direction of improvement and can be used as a communication tool when working with colleagues to understand barriers and facilitators.

We have refined a PERIPrem Data Optimisation Tool that you can download and use to track monthly progress. It is an invaluable part of the PERIPrem toolkit and we recommend spending time getting to grips with it.



Step 5 - Prioritise Planning

PERIPrem is a large clinical bundle with many moving parts. There are many aspects that need to be considered, including processes, communication and engagement and training and education. This is of course further pressured by the daily clinical and operational demands within units.

Whilst it's tempting to skip the planning part of PERIPrem, prioritising how you are

going to get going is one of the biggest factors in successful QI.

This can include understanding the working patterns of the team; take care to predict any contextual factors which will negatively impact the progress of the improvement project (seasonal demands, staff turnover etc). An effective way of managing this project is to develop a project plan, risks and issues plan and a communication plan to complement the implementation and training plans. The PERIPrem project team have a range of tools that support you through this process. Don't be put off by the 'dryness' of this aspect of the project, it can take many forms and can be as comprehensive or as 'light' as suits your team operational style and dynamic.

Setting aside the time to predict the risks, barriers and facilitators unique to your unit is important, it will foster creative and strategic thinking in how to shape the study to best fit your local context.



Step 6 - Promote an Experimental Culture

During the improvement process, errors are good if they lead to an innovative way to overcome them in the future. We encourage PERIPrem teams to use creativity, intuition and logic teamed with experience in order to identify innovative and fresh solutions as part of the PDSA Cycle. Working in a collaborative way to allow everyone to input their ideas will facilitate this process. Embedding quality improvement methodology into the working methods of your unit will have wider benefits than PERIPrem; it will provide a mechanism for future continuous improvement work.



Step 7 - Share Experiential Learning, work collaboratively and communicate

A benefit of PERIPrem is the opportunity to become part of a network of perinatal teams who are also working to embed the PERIPrem bundle within their trusts. You may wish to take advantage of joining this community, sharing lessons learned and solutions to obstacles within the clinical environment will enhance the work driven by your project team and support its success. You can follow the PERIPrem Twitter to become part of the wider movement.

The overall, long term outcome of the implementation of PERIPrem within trusts is the reduction in brain injury and mortality in pre-term babies. However it is important to recognise the wider influence of the project, including the legacy of embedding quality improvement methodology within your trust. Once the momentum for Quality Improvement is increased within a unit, it becomes easier to get started on making improvements in other areas.

Implementing PERIPrem – Useful Resources

PERIPrem Website

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/>

PERIPrem Main Resources Page

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-quality-improvement/>

Place of Birth Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-birth-in-the-right-place/>

Antenatal Steroids Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-antenatal-steroids/>

Magnesium Sulphate Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-antenatal-magnesium-sulphate/>

Intrapartum Antibiotic Prophylaxis Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/intrapartum-antibiotics/>

Optimal Cord Management Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-delayed-cord-clamping/>

Thermoregulation Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-thermoregulation/>

Maternal Early Breast Milk Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-early-breast-milk/>

Volume Guaranteed/Targeted Ventilation Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-volume-guarantee-volume-targeted-ventilation/>

Caffeine Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-caffeine/>

Prophylactic Hydrocortisone Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-prophylactic-hydrocortisone/>

Probiotics Resources

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-bundle-probiotics/>

PERIPrem: News, Events and Useful Materials

<https://www.weahsn.net/our-work/transforming-services-and-systems/periprem/periprem-news-and-updates/>

PERIPrem Animation

<https://vimeo.com/542579599>

PERIPrem Introductory and Public Videos

<https://vimeo.com/showcase/8213735>

PERIPrem Webinar Videos

<https://vimeo.com/showcase/8213616>

PERIPrem Event Videos

<https://vimeo.com/user27502217>

PERIPrem Bundle Element Videos

<https://vimeo.com/showcase/8181563>

All PERIPrem Videos

<https://vimeo.com/user27502217>