INDEPENDENT MATERNITY SERVICES OVERSIGHT PANEL

Cwm Taf Morgannwg University Health Board

Independent Review of Neonatal Services at Prince Charles Hospital

Summary Report
January 2022

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FOREWORD

On 30 April 2019, following the publication of a report setting out the findings of a review conducted jointly by the Royal College of Obstetricians and Gynaecologists and the Royal College of Midwives (the Royal Colleges), the then Minister for Health and Social Services (the Minister) announced that he was placing maternity services in the former Cwm Taf University Health Board in 'special measures'.

As part of a wider package of measures designed to support his intervention, the Minister appointed an independent panel (the Panel) to provide the oversight which is necessary to ensure that Cwm Taf Morgannwg University Health Board (the Health Board) addresses the failings identified by the Royal Colleges in a timely, open and transparent manner which places the women and families most affected at the heart of the process.

The Panel and the Health Board have long agreed that the integration of maternity and neonatal services is an important pre-requisite for the delivery of a safe and effective perinatal[1] service which focuses seamlessly on the needs of women, their babies and their families. In its last progress report, published in September 2021, the Panel explained that it was increasing its focus on neonatal services and in collaboration with the Health Board and the Welsh Government had commissioned a 'deep dive' review to assess whether the current service is safe and fit for purpose and to identify any areas where improvements need to be made.

The decision to conduct the deep dive review was driven by a number of factors including the emerging findings from the neonatal category of the Panel's Clinical Review Programme and the Health Board's own reviews of neonatal deaths which had occurred since September 2018. The review was led by the Panel's Neonatal Leads with support from a dedicated review team and the Panel's Lay Member.

The deep dive review has now been concluded and the Panel would like to express its thanks to the independent clinicians - Sian Oldham, Steve Jones and Frances Blackburn - who were an integral part of the dedicated review team. They were instrumental in developing the conclusions and recommendations which are summarised in this report.

The Panel would also like to express its gratitude to the families who took part in the listening exercise which informed the deep dive review and ensured that it was focused on the family voice. It is equally important to acknowledge the contribution of Health Board staff at all levels, who have openly and enthusiastically supported this work, despite the significant pressures which they continue to face as a result of the COVID-19 pandemic.

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[1] Perinatal is the medical term used to describe the period between a mother becoming pregnant and a year following the birth of their baby. It encompasses both maternity and neonatal services.

Cwm Taf Morgannwg University Health Board
Independent Maternity Services Oversight Panel

Mick Giannasi (Chair) is the Chair of Social Care Wales. He was formerly the Chair of the Board of the Welsh Ambulance Service NHS Trust and a Welsh Government Commissioner for Isle of Anglesey County Council. He is a police officer by background and a former Chief Constable of Gwent Police.

Cath Broderick (Lay Member) is an Honorary Fellow of the Royal College of Obstetricians and Gynaecologists and the author of the '*Listening to Women and Families about Maternity Care in Cwm Taf'* report. She has extensive experience in patient and public engagement and supported similar work in Morecambe Bay.

Alan Cameron (Obstetric Lead) has over 26 years' experience as a Consultant Obstetrician and has recently been appointed as the National Clinical Lead in Obstetrics and Gynaecology for the Scottish Maternity and Children Quality Improvement Collaborative.

Christine Bell (Midwifery Lead) has over 30 years' experience working as a Midwife in England, ten of those as a Head of Midwifery in a large NHS Trust. She is a designated Midwifery Assessor with the Royal College of Obstetricians and Gynaecologists.

Kelly Harvey (Neonatal Nursing Lead) has over 18 years' experience as a Neonatal Nurse and Advanced Neonatal Nurse Practitioner (ANNP) and is currently Lead Nurse for the North West Neonatal Network. She is a member of the National Neonatal Nurses Association Executive Committee and was Nursing advisor for the National Neonatal GIRFT project.

Alan Fenton (Neonatologist Lead) has over 26 years' experience as a Consultant Neonatologist and was previously President of the British Association of Perinatal Medicine. He was the Neonatologist in the core team of the 2016 National Maternity Review (Better Births) and has been part of the MBRRACE-UK collaborative since 2018.

Additional Deep Dive Team Members

Sian Oldham (Neonatal Nursing Advisor) is the Senior ANNP and Transitional Care nursing lead at the South Tees Hospitals NHS Foundation Trust. She is a registered nurse with 24 years' experience in neonatal care. Her additional professional interests include nursing and midwifery education and development.

Steve Jones (Neonatologist Advisor) has been a consultant in Neonatology and Paediatrics at the Royal United Hospital in Bath since 1996. He is a member of the Executive committee of the British Association of Perinatal Medicine and was a neonatal peer reviewer in the NHS England Peer Review 2015.

Frances Blackburn (Senior Nurse Advisor) is a registered adult nurse with 40 years' experience and was formerly the Deputy Director of Nursing and Patient Services for the Freeman Hospital in Newcastle upon Tyne. In 2018, she returned to a clinical role as a Sister in an offsite diagnostic and treatment outpatient department.

CONTENTS

1. About This Report

The purpose of this report is to summarise the findings of a deep dive review (the review) of the neonatal services currently being provided by the Cwm Taf Morgannwg University Health Board at Prince Charles Hospital in Merthyr Tydfil. The report also briefly explains the background to the review and sets it in the context of the Health Board's wider Maternity and Neonatal Improvement Programme. For ease of reference, this report is entitled the summary report.

1.1 The Summary Report

The summary report has been designed to inform a public audience and has been written with the women and families most affected by the Health Board's previous deficiencies in mind. For that reason, it does not include detailed evidence or analysis, nor does it contain complex clinical or technical information beyond that which is necessary to provide a meaningful understanding of the issues.

1.2 The Full Deep Dive Report

The full deep dive report sets out in detail the evidence on which the findings and recommendations arising from the review are based. It can be accessed here. The full report is specifically designed to provide detailed advice and guidance to the clinical team and the senior leaders who are responsible for delivering and developing the neonatal service in Cwm Taf Morgannwg.

It is important to bear in mind that the review was designed to explore in depth all aspects of the neonatal service currently provided at Prince Charles Hospital. This includes the way in which the service interacts and is integrated with maternity services and the wider organisation. It is, by any standards, a detailed and thorough examination of the service and that is reflected, not only in the decision to entitle it a deep dive review but also in the number, breadth and depth of the recommendations for improvement which have emerged.

The Health Board has welcomed this level of scrutiny and detail because it will help to inform improvement activities which are already underway and shape the future of the service for the benefit of babies and their families.

1.3 Implementation and Next Steps

The review has identified a number of areas where improvement is needed, including some issues related to safety and effectiveness which were escalated by the Panel to the Health Board for immediate attention in August 2021. These are reflected in a series of recommendations for the Health Board which are summarised in the relevant sections of this report and set out in detail in the full report.

The review team also identified areas where there may be learning for other health bodies in Wales and perhaps across the UK. This wider learning has been reflected in a small number of recommendations for consideration by the Welsh Government.

The Panel shared the full report with the Health Board in draft in December 2021. The findings and conclusions were welcomed by the Health Board and work has already commenced to address the recommendations.

In order to support the delivery of the recommendations, the review team has developed an 'action plan template' which has been shared with the Health Board. This has been designed to clarify the Panel's expectations and set out in more detail the work which needs to be done to address each of the recommendations, together with suggested timescales for implementation to enable prioritisation.

The Panel will continue to work with the Health Board and the Welsh Government in the coming months to ensure effective oversight of the safety and effectiveness of the neonatal service. The delivery of improvements in both neonatal and maternity services will continue to be monitored through the Panel's established assurance mechanisms and an assessment of the progress which has been made will be provided in the Panel's next regular report which is anticipated to be published in the late Spring of 2022.

In the meantime, the Health Board has published a response to the findings of the review alongside this report. The response explains what the Health Board has already done to address those issue escalated as requiring immediate intervention in August 2021, as well as explaining how it intends to deliver the wider improvements which are set out within the Panel's reports. A copy of the Health Board's response can be accessed here.

2. BACKGROUND AND CONTEXT

The Panel has assumed that for the most part, those who will find this report of interest will already be familiar with the events which led to the Royal Colleges' review of the Health Board's maternity and neonatal services as well as the key findings and recommendations contained within the Royal Colleges' report.

The Panel has also assumed that most people reading this report will have been following the regular progress reports which the Panel has been producing over the past two and a half years and as such, will already be aware of:

- the role of the Panel and its terms of reference;
- the work the Panel has been doing to oversee the Maternity and Neonatal Improvement Programme (MNIP) which was established by the Health Board in response to the Royal Colleges' findings;
- the progress of the Clinical Review Programme which has been conducted in conjunction with the improvement work;
- the background to the commissioning of the neonatal 'deep dive' review.

For anyone who is unfamiliar with the background or who wishes to refresh their memory, the Welsh Government website provides access to a range of information, including previous reports and the terms of reference for the Panel's work.

The Panel is required to report progress to the Minister on a regular basis. The Panel's most recent report, published on 05 October 2021, concluded that in relation to the maternity service, whilst there was still more to do and the pace of progress had been impacted by the COVID-19 pandemic, the Health Board was making good progress in delivering against the Royal Colleges' recommendations and had created solid foundations for longer term transformational change. A copy of the September 2021 Progress Report can be accessed here.

The September 2021 Progress Report also concluded that whilst there has been some early progress, the neonatal service was markedly less advanced in its improvement journey and pointed to the impending publication of the 'deep-dive' review findings as an important step in the process of identifying what further needed to be done to ensure that the service is safe and fit for purpose in the longer term.

2.1 EARLY NEONATAL IMPROVEMENT ACTIVITY

In the early stages of the improvement process, given the immediate nature of some of the maternity related recommendations set out in the Royal Colleges' report, the initial focus for the Panel, the Health Board and the Welsh Government was on the maternity service.

A Maternity Improvement Board (MIB) was established by the Health Board, led by an executive officer reporting to the Board via the Quality and Safety Committee. In order to deliver the necessary improvements, a Maternity Improvement Plan was developed focusing initially on eleven 'make safe' issues identified by the Royal Colleges. This included addressing, as a matter of priority, a lack of compliance with national guidelines relating to admission criteria for the Neonatal Unit.

In response to the Royal Colleges' report a 'gap assessment' was undertaken at Neonatal Unit level to identify and develop plans to act upon the improvement needs which were identified. In the meantime, in September 2019, a peer review of the newly established Neonatal Unit at PCH was conducted by the Wales Maternity and Neonatal Network (the Network). This was broadly positive, highlighting some areas of good practice, including excellent family facilities and the achievement of Stage Two of the UNICEF Baby Friendly Initiative.[2]

Although no immediate safety issues were identified by the peer review team, some concerns were raised about term admission rates and transitional care provision as well as the effectiveness of clinical governance processes including incident and mortality reviews, concerns which have subsequently been borne out by the deep dive review. It should be emphasised that the peer review process was very different in nature to the current deep dive review, particularly in terms of breadth, depth and the level of resources applied.

In October 2019, the Panel considered the progress which had been made since the beginning of the oversight process and given the early progress which was being made in the maternity service, concluded that it would be timely to increase the focus on neonatal services. A series of informal meetings took place with the Health Board to bring this about but the pace of progress was slower than was necessary. The issue was raised again more formally in March 2020 and reported as an area for priority action in the Panel's April 2020 Progress Report.

In response to the challenge from the Panel, in the 12 months which followed, the Health Board put in place a series of measures to consolidate and strengthen its response to neonatal service improvement. This included:

- the re-designation of the MIB as the Maternity *and Neonatal* Improvement Board with increased scrutiny and oversight of neonatal services at Board and Executive level;
- the appointment of the Medical Director as the dedicated Senior Responsible Officer for the neonatal element of the improvement programme;
- the appointment of a Neonatal Improvement Director and the establishment of a dedicated neonatal improvement team based within the unit;
- the integration of neonatal services within the overall improvement plan under the direction of the Director of Maternity Services, Gynaecology and Sexual Health;

[2] *https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/implementing-standards-resources/guide-to-the-standards/*

- the drawing together of neonatal and maternity services within a Women and Children's Directorate as part of the Health Board's revised Integrated Locality Group internal governance arrangements;
- the appointment of a Clinical Director to complete the membership of Clinical Service Group leadership team (referred to as the Triumvirate);
- the identification of 16 of the 70 Royal Colleges' recommendations as the initial focus for the development of the Neonatal Improvement Plan.

As a result of this more structured approach, some incremental improvements were made. This included, for example, upskilling some staff in the implementation of quality improvement techniques, a review of documentation, the development of a single observation chart and the development of a neonatal policy group.

2.2 NEONATAL SERVICE IMPROVEMENT POSITION

In February 2021, the Health Board concluded that it had made progress against 12 of the 16 Royal Colleges' recommendations identified as the focus for the neonatal improvement programme and evidence was presented to the Panel to support that self-assessment. However, the evidence was not formally assessed by the Panel as by that time, the need to conduct a more structured review of the service had been identified and proposals were in the early stages of development.

Despite the unquestionable commitment of the clinical staff within the Neonatal Unit and the considerable efforts of the dedicated neonatal improvement team, these early actions have not delivered the improvements in the neonatal service which are necessary at the pace which is needed; the findings of the deep dive review as summarised in this report, have clearly demonstrated that to be the case.

The impact of COVID-19 has been a hugely significant factor in that relative lack of progress and the ongoing impact of the pandemic on the pace of the Health Board's improvement journey has been clearly documented in the Panel's recent progress reports. It has also resulted in some of the resources which were allocated to the dedicated improvement team being returned to operational duties to support front-line colleagues. However, in the Panel's view, COVID-19 is not the only factor and the deep dive has also identified other more fundamental issues which have hindered the pace of progress in the neonatal improvement journey, most notably:

- a lack of physical capacity at senior leadership and clinical team level to drive through the improvements which are necessary (see Section 6);
- a lack of appreciation of what a 'good neonatal service looks like' borne out of an inwardly focused approach to service development (see also Section 6);
- missed opportunities to involve the clinical teams more directly in designing and delivering the improvements which are necessary (see Section 9).

These issues are explained in more detailed in the full report and reflected in the recommendations for improvement which have been made by the review team.

2.3 Decision to Commission the Neonatal Deep Dive Review

Against that background of incremental but ultimately insufficient progress, concerns began to emerge from the Panel's Clinical Review Programme which suggested that some of the historic failings which had been identified by the Royal Colleges in relation to the maternity service, might also be present within the neonatal service. Those concerns were amplified by the emerging learning from the Health Board's own Perinatal Mortality Review Tool (PMRT) based reviews of serious incidents relating to neonatal deaths which had occurred since October 2018.

Neither the Health Board nor the Panel was able to gain the necessary assurance that the problems identified from the historical clinical reviews and more recent serious incident investigations had been addressed and it was agreed that some further diagnostic work was required to improve the collective understanding of the situation. The Panel was particularly encouraged by the fact that the impetus to undertake this additional diagnostic work was initially provided by the Chair and independent members of the Health Board's Quality and Safety Committee and the wider Board.

In March 2021, with the active support of the Health Board, the Panel made a recommendation to the then Minister that there should be an increased focus on neonatal services within the oversight process. The Minister accepted this recommendation and authorised the commissioning of a deep dive review to assess the quality and safety of the neonatal services currently being delivered by the Health Board at the Prince Charles Hospital site and to make recommendations for improvement as necessary.

At the same time, the Minister appointed an independent Consultant Neonatologist and Advanced Neonatal Nurse Practitioner to the Panel to provide the capacity and expert professional knowledge required to lead the review and to broaden the Panel's oversight role to explicitly include the neonatal service.

Further information about these developments, which were publicly reported, can be found in the Minister's statement on 22 March 2021. A copy of the statement can be accessed here.

2.4 Terms of Reference and Methodology

The scope, terms of reference and methodology for the neonatal deep dive review can be briefly summarised as follows.

The primary aim of the review was to assess whether the neonatal service currently provided at Prince Charles Hospital is:

- safe and effective;
- well led and well managed;
- focused on providing a quality experience for women and families;
- integrated with the maternity service to provide a seamless service for women and babies;

- effectively integrated within the wider Wales Maternity and Neonatal Network;
- fit for purpose and sustainable in the longer term.

The review was led by the Panel's Neonatal Leads and supported by three experienced clinicians who were wholly independent of the Health Board and the Panel's previous work.

Work began in earnest in May 2021 and was informed by evidence gathered from a range of sources. There were four main elements to the review, those being:

(i) clinical case assessments of the care provided to the sickest infants;
(ii) a 'Listening to Women and Families Exercise' conducted by way of a survey;
(iii) a series of structured conversations with staff and wider stakeholders; and
(iv) a review of documentary evidence.

The review was complete at the end of October 2021 at which time the evidence was analysed and assessed and the findings, conclusions and recommendations were compiled into a written report.

2.5 WIDER HEALTH BOARD IMPROVEMENTS

In considering the findings and recommendations of the neonatal deep dive review, it is important to keep in mind the wider improvements which have been made by the Health Board since the Royal Colleges reported in 2019, particularly in relation to the maternity service.

These developments have been incrementally reported in the Panel's regular progress updates and include improvements in areas such as clinical audit, training compliance, safe staffing levels and in particular, in the way in which the service engages with women and families who use its maternity services. In recent months, with the support the NHS Wales Delivery Unit, the service has also taken significant steps forward in the way it identifies and manages serious incidents which will be reported in the Panel's next progress report in the Spring of 2022.

As the findings of this review clearly demonstrate, the same level of progress has not yet been realised within the neonatal service. However, there is transferable learning from other areas of the Health Board's improvement programme which could now be applied to bring about the improvements in the neonatal service which this further review has identified as being necessary.

3. ESCALATION OF IMMEDIATE CONCERNS

In August 2021, informed by evidence gathered during the first three months of the deep dive, the review team identified a number of concerns during the review process relating primarily to safe prescribing, clinical decision-making, documentation standards and the lack of full integration between maternity and neonatal services. The concerns were escalated by the Panel to the Health Board in order to enable immediate action to be taken to improve the safety and effectiveness of the neonatal care currently being delivered.

The Panel's concerns were also escalated to the Welsh Government and on 7 September 2021, the Minister issued a statement to the Senedd setting out the interim findings of the review and explaining the immediate actions the Health Board had taken in response. A copy of the statement, which provides a more detailed explanation of the background to the escalation, can be accessed here.

The Health Board accepted the interim findings and put in place a series of immediate and short-term actions to address the issues identified. This included:

- steps to improve prescribing practices and enhanced pharmacy support with daily oversight of prescriptions and further planned work to develop standard operating procedures, checklists and audits;
- revised arrangements to ensure the timely transfer out of women needing referral to a tertiary unit for safe delivery with the intention of reducing the number of inappropriate admissions to the PCH Neonatal Unit;
- enhanced support from and a closer working relationship with the Neonatal Intensive Care Unit (NICU) at the University Hospital of Wales in Cardiff;
- increased intensity of consultant oversight on the unit and an overall increase in the quantum of consultant time allocated to the unit;
- the recruitment of two additional consultants (this measure was already planned with one taking up post in November 2021 and the other in January 2022);
- steps to improve aspects of clinical practice, including urgent review of the approach to therapeutic cooling of babies and for those requiring intubation;
- steps to improve standards of documentation including an audit process.

In order to support the Health Board, the review team formulated an action plan template to ensure there was shared understanding of the immediate and short-term interventions required whilst the review continued to completion.

Since the escalation, the Panel has continued to work with the Health Board to support the delivery of the actions which were agreed and to ensure that the necessary improvements are made in a way which is sustainable in the longer-term.

Whilst the Panel has seen evidence which demonstrates that progress is being made, there is still further work to be done to fully address the issues and longer-term assessment is required to fully evaluate the impact of the changes which have been put in place. As such, the Panel will report in more detail on the effectiveness of the action which has been taken when it produces its next progress report in the Spring of 2022.

4. FAMILY EXPERIENCES

There is clear evidence from a range of sources that parental involvement in neonatal care contributes to positive long-term outcomes for babies and their families. It is also important in developing a safe and effective service, to ensure that parents' voices are clearly heard and used in a systematic way to inform improvements in service design and delivery.

For that reason, a 'Listening to Women and Families' exercise was conducted as part of the review to gain an understanding of what care felt like for those who have accessed the neonatal service at PCH from October 2018 to the present day.

4.1 FAMILY LISTENING EXERCISE

The family listening exercise was based on an online survey questionnaire which was publicised on behalf of the Panel via the Health Board's internal communication and social media channels. Families whose babies had been cared for by the Health Board's neonatal services from October 2018 onwards were invited to complete the survey and responses were received from over 100 families. Of those, 70 responses related specifically to the neonatal care they had received at PCH.

It is only possible in this summary report to provide a brief flavour of what is a rich and hugely powerful insight into the service from the perspective of those who have used it in recent times; as such, anyone who has a specific interest in this area of the review and wishes to understand more fully what emerged from the listening exercise is invited look at the full report.

4.2 KEY FINDINGS

The listening exercise invited both quantitative responses (i.e. how respondents rated various aspects of the service they received against a numerical scale) and qualitative responses (i.e. free text comments which provided the opportunity to describe experiences or personal feelings).

In quantitative terms, respondents were generally positive about the service overall and in particular about the support they received from staff. For example:

- 45 out of 70 (64%) of the families who completed the survey responded positively to the question "*Were you happy with the care provided throughout the time that your baby was in neonatal care?*";
- 42 out of 70 (60%) of the families responded positively to the question *"Overall, did the neonatal service meet the needs of you, your baby and your family whilst you were in their care?"*.

When specific aspects of the service were explored, the responses were more mixed. For example:

- 37 of the 70 (53%) families said “yes definitely” when asked “*Did you feel that staff were sensitive, listened to you and acted on your worries and concerns?*”;
- 34 of the 70 (49%) families who responded to the survey answered “yes definitely” to the question “*Did you always feel that you had enough time with the staff caring for your baby to talk about what was happening*?”;
- only 30 of the 70 (43%) families who responded to the survey felt they always had enough information and were involved in decisions, whilst 18 (26%) did not.

There was a greater degree of variation in how families rated feeling supported to get involved in caring for their babies whilst on the Neonatal Unit. Only 28 of the 70 (40%) respondents felt “very supported” and 27 of the 70 (39%) provided neutral or negative responses.

It is important to emphasise that this is a service provided to people in the midst of a difficult and traumatic experience and the number of negative or fairly negative responses indicates that there are significant opportunities for learning and improvement in people’s experiences.

It is important to note that when parents included free text feedback on their experiences, they often highlighted specific elements of care that they felt could have been improved, even though their initial assessment may have been positive.

It is also important not to look at this reflective feedback as negative criticism. The qualitative analysis provides a rich source of learning for the Health Board and the opportunity to work with families to co-produce a service that meets their vision of what good looks like.

4.3 WHAT GOOD CARE LOOKS LIKE

The in-depth qualitative analysis of the families’ stories and experiences contrasts to some extent with the snapshot of opinion from the scaled responses but provides a far richer and deeper understanding of families’ views of care and services. Many families responded with positive feedback for the service and many were keen to thank the team for ‘saving their baby’. There was also particular praise for the dedication of the nursing team overall and parents were able to identify areas of good care and support which met their baby’s needs and worked well for them.

Parents who were broadly positive about their experience, described a neonatal service which puts the care of the whole family at the centre. Some of the elements of good care and support which were identified from the qualitative analysis are set out in the table below, together with specific quotes which exemplify them.

Examples of Good Care - Key Themes	What Women and Families Said …
Staff were supportive and provided personal contact in a comfortable environment	*"Staff were so friendly and supportive. Always there when you were struggling, never judgemental and so caring with my baby." (2020)*
Staff provided information and explanations in a timely and well-communicated way	*"Everyone communicated baby's care well. I understood what he was receiving, what machines he was on. They gave advice and emotional support to me." (2020)*
Staff were thoughtful and empathetic whilst communicating well and being mindful of parents' emotional well-being	*"The staff were absolutely wonderful, and so helpful. We were lucky that our son was only there 5 days but the staff couldn't have done enough. I was set on breastfeeding and the nurses helped me to achieve this on day 3, and supported me with pumping/hand expressing until then." (2020)*
Staff recognised the impact of the COVID-19 pandemic and responded positively within the limitations posed	*"Even though COVID regulations were in place it was made clear that we could visit and stay with baby for as long as we liked. Staff were excellent." (2021)*
Consistency of approach, decisions and opinions with clarity around routine and the timing of care - a professional and	*"I liked the daily routine and consistency in timings such as the morning check-ups, clean and lights going on and turning off at consistent times each day. It helped bring rhythm to the day." (2019)*
Provision of good information and access to their baby with the ability to visit and contact the unit when they wanted to	*"Whilst I was stuck on maternity ward and separated from my baby, I was unable to get out of bed to go see her for days. So the SCBU staff set up an iPad video call so I could see my baby and it helped me massively to be able to see her at least. They also kept me well updated on how she was doing at all times." (2021)*
Opportunities to be involved in decisions about their baby's care with one-to-one support for their baby and the family	*"1-2-1 nurses who you could develop a bond with. Support to "parent" your own baby by doing things such as nappy changes and care." (2019)*

4.4 AREAS FOR IMPROVEMENT

Analysis of the more negative qualitative responses which were received from parents revealed a number of areas where the care provided did not meet their expectations nor meet recognised standards for an effective, family-centred neonatal service. This information provides a rich source of information for learning and improvement as well as the opportunity for the Health Board to develop a neonatal service built around the needs of those accessing it. The feedback can be broadly grouped into eight key themes and summarised as follows:

- communication and information;
- listening and responding to concerns;
- separation from baby;
- involvement in decisions about care;
- variability and inconsistency in service;
- emotional support;
- breastfeeding support;
- discharge and support at home.

Each of these key themes has been explored in some depth in the full report as they will enable the Health Board to develop the women and family-centred services it aspires to. However, a flavour of the issues is provided in the table below, together with quotes from parents which are typical of the wider responses received.

Key Theme	What Families Looked For	What Some Said about Their Experience
Communication and Information	• clear and timely information which provides reassurance; • an understanding of what was happening to their baby; • doctors taking time to share information, to be empathetic and to listen.	*"Consultants have a tendency to talk over parents to the nurses during morning rounds rather than include them in the conversation. While I appreciate that medical staff need to communicate, being in neonatal is scary and leaves parents feeling powerless and a little lost. Being included more, rather than being briefed with a few sentences at the end almost as an afterthought, would help parents regain a sense of control." (2021)* *"I only received basic updates from the nursing staff. My partner and I were both given the impression that the doctors were too busy to speak to us." (2019)*
Listening and Responding to Concerns	• concerns and issues listened to and responded to appropriately.	*"I was made to feel even though they listened to my concerns they were not taken seriously. Which left me questioning where to turn next." (2021)*

Key Theme	What Families Looked For	What Some Said about Their Experience
Separation from Baby	• information about the location and condition of their baby.	*"Brilliant job looking after my baby but for 9 hours from having baby, I had no clue where he had gone, nobody was telling me anything." (2020)*
Involvement in Decisions About Care	• to be involved in their own care and their baby's; • to feel included and involved in decision making; • for their decisions and choices to be respected.	*"Some of the staff were okay but the majority were absolutely clueless. We weren't kept updated with what was happening with my daughter or her test results they were put straight into the notes. They didn't ask permission to do certain tests and never found the cause. We were not aware that baby would be on antibiotics until the midwives on the antenatal ward told us." (2020)*
Variability and Inconsistency	• consistency of practice, advice and decision making; • being made to feel welcomed; • for the quality of care to be consistent even when staffing changes occur (e.g. overnight or at the weekend).	*"Some staff weren't very happy with us holding our baby and didn't want us involved in her care which made us feel very upset and when these certain people were on shift made us feel very uncomfortable there. Then there were other staff would come over for a chat, give us advice and really felt like good friends ..." (2018)* *"Different doctors and nurses would say different things every day. So, a consistent plan that everyone would follow would have been helpful." (2019)*
Emotional Support	• emotional support and counselling when they felt stressed or anxious; • information about support groups.	*"Not one nurse or doctor would ask if I was okay or give any sort of support at all." (2020)* *"No support was given even though I have a history of PTSD, anxiety and PND (from previous NICU experience)." (2021)*
Breastfeeding Support	• support for establishing breastfeeding; • freedom to make their own choice without undue influence from staff.	*"The breastfeeding support was a mixed bag, some staff were amazing, but certain members of staff (especially those in special care) are completely uneducated about breastfeeding. Formula was pushed by special care staff, with no explanation given to me about why it was necessary. My baby was brought over to the ward at 2am and left with me even though I had yet to successfully feed her." (2019)*

Key Theme	What Families Looked For	What Some Said about Their Experience
Discharge and Support at Home	• clarity and certainty about discharge arrangements; • information, support and time; • support at home post-discharge.	*"Very rushed discharge only knew the day my baby was coming home that she was coming home." (2019)* *"We were told the baby would be discharged after the doctors rounds in the morning. We were finally allowed to take him home late evening, in the snow, after waiting around all day." (2019)*

4.5 ENGAGEMENT WITH PARENTS

In addition to the listening exercise, the review team assessed documentary evidence and conducted discussions with staff and stakeholders. They also reflected upon the findings from the clinical case assessments which identified similar themes to the listening exercise in terms of opportunities for improvement and learning.

Based on that analysis, the following key conclusions were drawn about the arrangements which are currently in place for engaging with women and families who use the neonatal service at PCH:

- routine mechanisms for family engagement appear to be in place;
- there was information to show that patient feedback was being collected but no evidence or data was provided to show that this had been thematically analysed;
- it was not possible to confirm whether or not feedback from complaints and concerns was being used effectively to influence practice because there was no data available to enable an assessment to be undertaken.

In line with the Royal Colleges' recommendations there is a workstream within the Neonatal Improvement Plan to develop the range and scope of engagement with women and families. Information provided by the Health Board indicated that an engagement plan has been drafted and the development of engagement processes and systems continues to be supported by the appointment of an Engagement Lead.

The development of Patient Related Experience Measures (PREMs) also went live in maternity services in September 2021 as a pilot and is planned to be rolled out to neonatal services and more widely within the Health Board.

4.6 IN SUMMARY

Despite improvements in family engagement by the maternity service in the two and a half years since the Royal Colleges' findings were published, the review team were not assured that the neonatal service has yet developed the mature mechanisms which are needed to gather feedback or to demonstrate that the experiences of families using the neonatal service have been listened to and acted upon.

That said, it is recognised that the restrictions associated with the COVID-19 response have impacted significantly on planned progress in this area. The Health Board are increasingly looking to draw on and replicate the learning and good practice which has developed within maternity services around feedback and engagement and that offers the opportunity for improvements to be made at pace.

The Panel are grateful to the families who contributed to the listening exercise. Their valuable insights demonstrate quite clearly the impact which people's experience of care can have at such a difficult time in their lives, even when the clinical outcome is a positive one. The positive stories shared by families also demonstrates how important good care and support can be in terms of the overall experience.

The learning which emerged from the listening exercise is broadly consistent with that which emerged from the Royal Colleges' review and clearly demonstrates that despite the wider progress made by the Health Board since 2019, there is still considerable work required within the neonatal service to improve communication and engagement with women and families to the standard expected.

4.7 RECOMMENDATIONS FOR ACTION

In order to address the issues and areas for improvement which were identified in this part of the review, the Panel has made five recommendations for action by the Health Board which are set out in the full report. In summary, these relate to:

- the development and delivery of a family engagement strategy building on the learning derived from developments in the maternity service; (Rec 1.1)
- a review of current arrangements for breastfeeding support; (Rec 1.2)
- development of neonatal peer support networks; (Rec 1.3)
- provision of dedicated psychological support for families and staff; (Rec 1.4)
- implementation of a framework for Family Integrated Care. (Rec 1.5)

5. GOVERNANCE, ASSURANCE AND ACCOUNTABILITY

In order to assess the effectiveness of the Health Board's governance, accountability and assurance arrangements in so far as they relate to neonatal services, the review team examined a wide range of relevant documentation provided by the Health Board and observed a series of meetings at local Clinical Service Group (CSG), Integrated Locality Group (ILG) and Board and committee levels.

The team also spoke with staff at all levels from 'Ward to Board' as well as key external stakeholders. These conversations took place virtually due to COVID-19 restrictions but even so, the review team were generally impressed by the openness, enthusiasm and willingness to improve practice which they encountered.

By reviewing evidence regarding the neonatal service and how it fits within the wider governance, accountability and assurance arrangements for the Health Board, the Maternity and Neonatal Network and NHS Wales, the review team were able to identify strengths and areas for improvement.

5.1 WHY THIS IS IMPORTANT

Neonatal services cannot be considered in isolation. They are inextricably linked to maternity and other Health Board services as well as to the maternity and neonatal networks which have been developed at a regional and national level. There should be appropriate mechanisms in place for the oversight of all processes, systems and outcomes at each level within the Health Board to ensure that the neonatal services which are provided are safe and effective for those who use them.

5.2 STRENGTHS TO BUILD UPON

The review team found evidence that a range of governance structures which contribute to safety and effectiveness within the PCH Neonatal Unit have been created at local CSG, ILG and Health Board level. For example:

- a Neonatal Forum has been established which meets regularly and seeks to create consistency of approach at Health Board level;
- a Neonatal Quality Review and Lessons Learnt group has been established as part of the Neonatal Governance arrangements;
- the ILG governance structure is now formally established with clear leadership and dedicated Quality and Governance posts in place;
- albeit that the process is relatively new, there is reporting from the ILG into the Health Board's Quality and Safety Committee including neonatal updates;
- the quality of care within maternity and neonatal services are clearly a priority within the Health Board's governance processes and meeting structures;
- there is regular reporting of progress against the Maternity and Neonatal Improvement Programme to the Board via the Quality and Safety Committee;
- there is evidence of scrutiny and challenge, as well as a desire for detailed assurance from Independent Members.

Some of these processes are relatively new and are still embedding and the Health Board is working to strengthen them. Some staff said that the new governance arrangements felt complex and had created uncertainty and this may be something for the Health Board to consider as it develops them further. However, beyond those structural elements, the review team identified other issues which need to be addressed in order for the governance and assurance processes which have been developed to be effective and fit for purpose.

5.3 AREAS FOR IMPROVEMENT

Whilst there are appropriate governance and assurance arrangements in place within the Neonatal Unit at the local level, the review team identified room for improvement in the way these are applied. For example:

- the review of minutes from quality and safety related meetings indicated that multidisciplinary attendance was not consistently achieved;
- the standard and quality of the agendas, action plans and minutes were inconsistent, impacting on the ability to track progress from one meeting to the next and across the various governance structures;
- the risk register made available to the review team had duplicate or near duplicate entries and several review dates were overdue.

Those are administrative issues which require process improvements to resolve them. However, the team identified a number of more fundamental issues which have the potential to undermine other aspects of the governance and assurance processes if they are not addressed as a matter or priority:

- **Data Availability** – the review team found a lack of robust and accurate data (for example, about activity and clinical outcomes, about learning from clinical audits and incident reviews and about themes emerging from the analysis of family feedback) which would enable the neonatal clinical team to assure themselves about the safety and effectiveness of the service they are delivering and in turn to provide that assurance to others, in particular, the ILG and the Board;

- **Data Quality** – the data which is available should be assessed against service standards and must be accurate to enable this to happen. The review team identified under reporting and misclassification of incidents and an acceptance of high levels of term admissions which indicated that opportunities to recognise quality and safety issues and opportunities to improve services are being missed;

- **Culture** - in conversations with staff and stakeholders at all levels, the review team were informed that historic governance processes have led to a culture of blame (this was also raised by the Royal Colleges in 2019). It was also evident that as part of that cultural legacy, governance was seen as a nursing function rather than multidisciplinary. There was a recognition that the current leadership team is working to address these issues, although it remains a longer-term focus;

- **Service Integration** – PMRT meetings are held jointly between the neonatal and maternity teams. However, beyond that, the review team found little evidence of integrated governance and assurance mechanisms relating to those aspects of care where there is a requirement for joint ownership by the neonatal and maternity services;

- **Capacity** - it was clear to the review team that staff are trying their best to deliver a safe, high-quality service and there are plans in place or in development to enable them to do that. However, there is evidence of delay against improvement trajectories. Whilst COVID-19 has clearly been a factor in those delays, the review team was also concerned by the lack of protected time allocated to senior nurses to enable them engage in improvement activities.

Whilst all of those issues require attention and are reflected in the recommendations which follow, the Panel's most significant concern is that the current Neonatal Unit's clinical governance processes did not 'flag up' the safety and effectiveness issues which the review team identified during the deep dive review (for example, prescribing practices, care of babies outside of accepted admission criteria and unplanned extubation rates). As a consequence, those issues were not visible to the Board until they were escalated by the Panel in August 2021.

In seeking to understand this, the review team established that there was a belief within the Health Board that whilst neonatal services required improvement, there were no safety issues. That belief appears to have been based on the fact that no safety related issues had been escalated, rather than being based, as it should have been, on evidence which demonstrated that the service was safe and effective, for example, through the routine monitoring of a quality dashboard or incident metrics.

This is an area which the Health Board is focusing on through its wider quality and safety governance improvement work which is being monitored by Healthcare Inspectorate Wales and Audit Wales as part of their ongoing joint review. The Panel has seen evidence that there are 'new ways' of thinking about quality and safety governance at Board level. However, the deep dive review has re-emphasised the importance of this work and indicates that there is still more to do. It has also emphasised the need, highlighted previously, for the neonatal service to develop a robust and accurate dashboard based on high-quality data.

5.4 WIDER CONSIDERATIONS

External peer review is an invaluable tool for improving all aspects of clinical care. This 'fresh pair of eyes' approach can provide challenge which is of benefit to organisations at all levels. It is of particular benefit where complacency or 'group think' occurs, as identified in the Kirkup report.[3] One way of currently providing external review in NHS Wales is through the Maternity and Neonatal Network, which currently undertakes peer assessments of neonatal services.

[3] *Kirkup W. The Report of the Morecambe Bay Investigation. 2015 (accessed 25/10/2021).*

The Neonatal Unit at PCH was subject to a network peer review in September 2019 and the outcome of that review was set out in section 2.1 of this report.

The role of the Network is currently advisory, unlike the Operational Delivery Networks in England and the Managed Clinical Networks in Scotland which are commissioned to provide management of service capacity, clinical pathways and assurance.

During the process of reviewing evidence and in particular, through their conversations with staff and external stakeholders about the role of the Network, the review team identified concerns from multiple sources about:

- challenges with neonatal intensive care pathways across South Wales;
- a lack of governance oversight with poor risk management system functionality;
- local units undertaking cot location, taking clinical staff away from providing care for very sick babies.

For these reasons, the Panel suggests that the Welsh Government may wish to consider commissioning a review of neonatal services across Wales akin to the Neonatal Critical Care Transformation Review which was conducted in England in 2018[4]. This should consider capacity, patient flows and transport services as well as the Network's role in providing operational consistency and assurance.

5.5 IN SUMMARY

The safety and effectiveness of the neonatal service is the collective responsibility of all of those invested in the service and not the sole responsibility of clinicians. Based on the evidence assessed, the review team was not assured that the clinical governance processes which have been established for the neonatal service are, as yet, reducing the level of clinical risk or driving improvements in care. The review team identified a number of underpinning issues which need to be addressed as a matter of priority in order to enable this to happen.

Clinical service leaders are best placed to have oversight of data about their service to enable them to provide assurance and escalate concerns. The review team were particularly concerned about the lack of robust and accurate data relating to the neonatal service which has the potential to undermine many of the governance and assurance processes which have been put in place. The development of a robust dashboard which enables clinical outcomes and the metrics for safe care to be visible from service level to the Board via the ILG structure should therefore be a priority for the Health Board.

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[4] NHS England and NHS Improvement. Implementing the Recommendations of the Neonatal Critical Care Transformation Review. 2019 (accessed 25/10/2021).

5.6 RECOMMENDATIONS FOR ACTION

In order to address the areas for improvement which were identified in this element of the review, the Panel has made four recommendations for action by the Health Board which are set out in the full report. In summary, these relate to:

- strengthening neonatal service governance arrangements; (Rec 2.1)
- improving ward to Board assurance processes; (Rec 2.2)
- improving oversight of clinical performance at ILG and Board level; (Rec 2.3)
- developing more effective clinical audit procedures. (Rec 2.4)

In addition, the Panel has made two recommendations for consideration by the Welsh Government. These are set out in the full report but in summary, relate to opportunities to consider:

- a wider review of neonatal critical care service in Wales; (Rec 8.1)
- seeking assurance from healthcare providers that high-risk clinical services achieve compliance with national safety standards. (Rec 8.2)

6. NEONATAL SERVICE WORKFORCE

The workforce section of the full report includes detailed information which will assist the clinical teams in understanding precisely what is required to address the areas for improvement which have been identified by the review team in this area. However, the key themes and issues are briefly summarised below.

6.1 WHY THIS IS IMPORTANT

An understanding of the neonatal workforce, both in terms of structure and function, is key to understanding the safety and effectiveness of the service. For that reason, the review team focused particular attention in this area, reviewing a substantial amount of documentary evidence and holding one to one and focus group conversations with a number of staff and stakeholders at all levels.

In addition to considering the current workforce model against national standards developed by the British Association of Paediatric Medicine (BAPM), the review team also explored issues in relation to education, training and staff culture.

6.2 STRENGTHS TO BUILD UPON

Whilst a significant number of areas for development were identified in relation to the workforce, the review team also identified some areas of effective practice which provide the foundations for further development. In particular:

- the review team were impressed by the commitment to improve practice which they encountered during their conversations with staff and were encouraged by their willingness to speak openly about the challenges they faced;
- whilst there have been significant changes in personnel at the most senior levels, nurse leadership at Bands 6 and 7 is stable and consistent and those staff appear to understand the service well;
- whilst the funded nursing establishment enables BAPM standards to be met, staff raised wider concerns about capacity linked to a range of other factors like ward layout, time spent away from the ward attending high risk deliveries and admitting babies from the postnatal ward as well as time spent arranging transfers;
- there were good foundations in place for nurse education and training including comprehensive staff training and competency logs, access to mandatory training and the development of Quick Response-coded equipment manuals;
- there is dedicated funded time for some nursing quality roles (for example, breastfeeding) albeit that this needs to be extended to other quality related roles like bereavement and family integrated care.

6.3 AREAS FOR DEVELOPMENT

Whilst there was evidence of effective workforce practices, the review team also identified some areas of concern and a clear need for investment in the neonatal workforce from both medical and nursing perspectives as well as from a wider multidisciplinary team perspective. A range of opportunities were identified to strengthen the current workforce model in order to achieve compliance with BAPM standards, improve safety and effectiveness and enhance the quality of care provided for women and families.

These opportunities are directly reflected in the fifteen recommendations which have emerged from this element of the review and in the interest of keeping the Summary Report reasonably concise, it is not intended to cover each of the recommendations individually. However, some of the more significant issues are set out below.

(i) Medical Staffing

Consultant cover for the Neonatal Unit is currently provided through a 'Consultant of the Week' arrangement which provides availability from 08:30 -12:30, Monday to Friday, dependent on consultants from PCH and Royal Glamorgan Hospital (RGH).

The arrangements currently in place to support this do not meet BAPM standards and have implications for safety and consistency; seven consultants contribute less than two weeks cover annually. As such, an urgent review of the medical workforce is required in order to increase access to senior leadership and provide the clinical expertise, role modelling behaviour and clinical challenge which is required in order to drive forward improvements in safety and effectiveness.

It is important to emphasise this this was one of the issues which was escalated by the Panel in August 2021 and the appointment of additional consultant staff is being progressed as part of the Health Board's response.

(ii) Nurse Staffing

Whilst the funded nursing establishment enables BAPM standards to be met, the review team identified a number of opportunities to develop the nurse staffing model in line with innovative practice and new ways of working emerging elsewhere in the UK. This includes, for example:

- **Advanced Neonatal Nurse Practitioners (ANNPs)** - capacity within the medical team could be supported by expansion of the ANNP team with mentoring support, training and continued professional development provided through a partnership with the local Level 3 NICU;

- **Leadership Capacity** - there should be investment in a Neonatal Unit Senior Nurse position who is in part Matron and part Improvement Lead Nurse to ensure there is a stable senior nursing leadership structure with the specialist ability and leadership experience to know and deliver 'what good looks like'. Additional investment would also enable the nurse in charge role to be supernumerary;

- **Nursing Quality Roles** - there is dedicated, funded time allocated for some nursing quality roles such as breastfeeding and practice development. Other roles (for example bereavement, family integrated care/developmental care, governance and discharge planning) do not have dedicated funding. In order to provide a quality, safe and effective neonatal service, wider non-clinical roles must be funded with protected time.

The review team also identified other opportunities to improve the effectiveness of the existing nursing workforce. For example:

- **Staff Rotation** - there is limited evidence of opportunities for career development within the neonatal nursing team. Rotation of nursing staff to exemplar neonatal units would enable staff to develop experience, improve their understanding of 'what good looks like' and provide the confidence to challenge practice which falls below the standards expected;

- **Clinical Supervision** - there did not appear to be formal arrangements in place for regular clinical supervision which enables nurses to reflect on their practice in a safe and supportive environment. Suitable arrangements should be put in place to do this linked to performance appraisal and training needs analysis.

(iii) Wider Multidisciplinary Team

As part of the escalation in August 2021, the Panel identified prescribing practices as a significant safety-critical issue. Pharmacy service provision for the Neonatal Unit was under-resourced, only equating to one hour per weekday. This time was divided between the Neonatal Unit, babies requiring prescribed medication on the postnatal ward and paediatrics. This had a number of consequences, including:

- a lack of consistent oversight of prescribing practice;
- quality and safety assurance initiatives such as a pharmacy safety huddle being undertaken by the current post holder, working in their own time;
- a lack of direct involvement or oversight of incident reviews involving prescribing or drug administration errors;
- an inability to quality assure prescribing practice; and
- an inability to share transferable learning.

Of additional concern was the lack of succession planning which will impact on the provision of continuous specialist neonatal pharmacy services which are sustainable in the longer term.

It is important to emphasise that these issues are now being addressed as part of the Health Board's response to the Panel's interim escalation and that there is a clear focus on improving pharmacy support for the neonatal service.

(iv) Education and Training

The review team found little evidence that multidisciplinary team (MDT) training (including joint training with maternity staff) was consistently taking place. This is a significant enabler of safe and effective care and enhances the collective ability to work as an effective team in times of high stress. This should be addressed as a matter of priority, optimising the opportunities provided by simulation training.

6.4 RECOMMENDATIONS FOR ACTION

In order to address the concerns and opportunities for improvement which were identified in this area of the review, the Panel has made 15 recommendations for action by the Health Board which set out in the full report. In summary, these relate to:

- compliance with BAPM standards for medical and nursing provision; (Rec 3.1)
- increased and better focused consultant presence on the unit; (Rec 3.2)
- the creation of a Neonatal Unit Senior Nurse role; (Rec 3.3)
- expansion of the Advanced Neonatal Nurse Practitioner team; (Rec 3.4)
- rotation of nursing and medical teams to exemplar Neonatal Units; (Rec 3.5)
- additional investment in nursing quality roles to improve resilience; (Rec 3.6)
- the nurse-in-charge role within the unit being made supernumerary; (Rec 3.7)
- use of Allied Health Professional roles in line with national standards; (Rec 3.8)
- increased capacity for the provision of clinical pharmacy; (Rec 3.9)
- compliance with mandatory training requirements for all staff groups; (Rec 3.10)
- identification and training of Newborn Life Support (NLS) instructors; (Rec 3.11)
- development of a specific nurse teaching programme; (Rec 3.12)
- clinical supervision linked to appraisal and training needs analysis; (Rec 3.13)
- development of simulation training using case examples; (Rec 3.14)
- use of joint simulation training for perinatal service professionals. (Rec 3.15)

7. NEONATAL UNIT SAFETY

In assessing this area, the review team drew upon information from a range of sources including the review of documentation, conversations with staff, as well as information emerging from clinical case assessments and the family listening exercise.

7.1 WHY THIS IS IMPORTANT

Responding appropriately when things go wrong is central to the way that NHS organisations continually improve the safety and effectiveness of their services. Over the last decade, the NHS in Wales has developed a standardised way of recognising, reporting and investigating things which go wrong and a key part of that is the way the system responds to serious incidents (SI's).

The Royal Colleges' report raised significant concerns about the Health Board's arrangement for reporting, investigating and learning from SI's and there has been a focus at the corporate level on delivering improvements in this area since that time. Over the last nine months, with support from the NHS Wales Delivery Unit, significant progress has been made in improving the way in which SI's are investigated, albeit that there is still more to be done. The Panel will be reporting further on the outcomes of this work in its next progress report in the Spring of 2022.

It is essential that the neonatal service is able to demonstrate that it has effective arrangements in place to ensure that SI's are identified correctly, investigated thoroughly and, most importantly, trigger actions, including learning for individuals and teams, which will prevent them from happening again.

7.2 STRENGTHS TO BUILD UPON

Many of the neonatal staff the review team spoke to welcomed external scrutiny and shared their own thoughts about where improvements might be made for the benefit of families and their babies. This demonstrated a team with dedicated, caring staff committed to the neonatal service and its ongoing development.

Reported incident numbers suggested that the neonatal team recognises the need to report clinical incidents. Work has been undertaken to ensure that within their induction programme, staff joining the Neonatal Unit are informed of how to raise concerns and are encouraged to do so. The review team were informed that incidents involving medical staff would be discussed during appraisal and they were provided with the Health Board's policy which underpinned that.

The review team saw evidence of recent work having been undertaken to explore themes from SI's, moving away from individual actions to seek to understand system and human factors. This is good practice and should be built upon.

There was also evidence that incident debriefs had been undertaken and some of these, but not all, had appropriate multidisciplinary team participation. The Neonatal Unit has also developed mechanisms to share learning including a newsletter and a display board on the unit.

7.3 AREAS FOR DEVELOPMENT

Despite the obvious efforts to promote the benefits of reporting, investigating and learning from serious incidents, this does not yet appear to have translated into a safety culture where the value of incident reporting is embedded and the learning which emerges supports clinical improvement.

Staff indicated that 'reporting friends' remains a barrier to reporting. There were findings from the clinical case assessments wherein Datix reporting would have been expected due to transfer out or unexpected admission, but this was not evident.

From the clinical case assessments, there was repeated evidence that the local review of Datix reports was inadequate. SI investigation reports identified that actions had been completed but there was often a lack of evidence to indicate that this had generated changes in practice or been fully embedded. This was also evident in the Root Cause Analysis (RCA) investigation processes; those which were reviewed were not robust enough, nor were they consistently undertaken by appropriately skilled staff or with multidisciplinary involvement.

Incidents were also identified wherein the severity or nature of the incident had been missed or under-reported. This may have resulted from a failure to recognise suboptimal care, rather than exemplifying a poor reporting culture.

Some staff said that they did not always receive feedback from incidents, which suggests that staff may not yet value the process of raising concerns. Others felt overwhelmed by the volume of communication and instructions. A feature of some of the post-incident review communication was that it was not set in any context which would assist staff in understanding why changes were being requested and the intended outcome; this included staff being informed about actions agreed in incident review meetings via email.

7.4 SUMMARY

Processes for incident reporting and investigation are evolving but still lack the necessary level of rigour and consistency. Processes are changing and meaningful attempts are being made to disseminate key messages to staff, but there is currently insufficient depth of learning to support reflection and embed change in practice.

In the course of conversations with staff about the safety of the neonatal service, some issues emerged about the arrangements which had been developed for delivering improvements and the relationship between the clinical teams and improvement team. This indicated a lack of clarity of roles and some disconnect in terms of roles and responsibilities.

Whilst not directly relevant to the deep dive review itself, these issues do require further examination by the Health Board.

7.5 RECOMMENDATIONS FOR ACTION

In order to address the areas for improvement which were identified in this area of the review, the Panel has made three recommendations for action by the Health Board which are set out in the full report. In summary, these relate to:

- ensuring that situational context and potential human factors are considered when seeking to derive learning from incidents; (Rec 4.1)
- development of a culture focused on safety, awareness and communication across the perinatal (maternity and neonatal) multidisciplinary team; (Rec 4.2)
- including reflective practice within unit learning and incident reviews. (Rec 4.3)

8. WALES AND NATIONAL REPORTING

8.1 WHY THIS IS IMPORTANT

Accurate data concerning admissions, outcomes and workload are essential to support safe and effective service delivery at local, Health Board and national level.

8.2 STRENGTHS TO BUILD ON

The review team saw clear evidence that the neonatal service is engaging fully in audit activity at national, Health Board and local levels in line with All-Wales standards. Unit performance data against national indicators such as the National Neonatal Audit Programme (NNAP) are clearly presented with planned future audits listed based on the outcomes of the preceding year.

8.3 AREAS FOR DEVELOPMENT

Although there is clear evidence of compliance with national reporting requirements, the review team were not assured that the data provided is always accurate and complete. For example, the National Clinical Audit and Outcome Review Plan which was submitted in 2020 has lead clinicians identified for each of the audit workstreams. However, start dates, monthly progress updates and completion dates were incomplete for each of the audits listed.

The Health Board has developed a neonatal dashboard to enable key performance metrics to be monitored and evaluated on a regular basis. When the dashboard was originally presented to the review team it contained only one metric, that being a national metric known as ATAIN (Avoiding Term Admissions Into Neonatal units). This indicated a high rate of admissions with minimal improvement over a period of two years. The accompanying narrative did not indicate what steps had been taken to address this issue. Following discussions, additional metrics were included within the dashboard but subsequent examination revealed a lack of data oversight and cross-checking.

The review team were informed that there are ongoing issues regarding the completeness and accuracy of data from the BadgerNet[5] system. These findings triangulated with those arising from clinical case assessments.

8.4 IN SUMMARY

The review team saw clear evidence of compliance with national reporting requirements. The major issues identified relate to the accuracy and completeness of the data, ownership by the clinical team as well as the utilisation and interpretation of data to inform service quality and support improvement.

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[5] *BadgerNet is the patient data management service used by the neonatal service.*

8.5 RECOMMENDATIONS FOR ACTION

In order to address the areas for improvement which were identified in this area of the review, the Panel has made two recommendations for action by the Health Board which are set out in the full report. In summary, these relate to:

- improving the accuracy and completeness of Neonatal Unit data; (Rec 5.1)
- developing the neonatal dashboard to encompass a wider range of performance and quality metrics with more effective clinical audit procedures. (Rec 5.2)

In addition, the Panel has made one recommendations for consideration by the Welsh Government. This is set out in the full report but in summary relates to the opportunity to consider:

- allocating responsibility for the oversight of key safety metrics to the Wales Maternity and Neonatal Network. (Rec 8.3)

9. NEONATAL UNIT FUNCTIONALITY

9.1 WHY THIS IS IMPORTANT

Neonatal services do not exist in isolation; they are inextricably linked with maternity services. For that reason, multidisciplinary team (MDT) working between maternity and neonatal services is essential to optimise clinical care for women and babies.

9.2 AREAS FOR IMPROVEMENT

(i) Integration of Maternity and Neonatal Services

This was a significant area of concern for the review team. The clinical case assessments carried out by the review team identified missed opportunities for early joint working, risk assessment and decision making. Staff conversations also demonstrated that effective integration between maternity and neonatal services was an ongoing challenge. Some staff expressed a view that maternity and neonatal services work in 'silos' with a perceived lack of willingness to share information. Clinical staff described delays in being informed of women in preterm labour.

The unit sometimes works outside of its agreed model of care to provide care to unexpected on-site deliveries of babies under 32 weeks gestation. This occurs more frequently than would be expected and creates risk. This is potentially symptomatic of poor liaison and communication between maternity services and neonatal staff. Staff were aware of this as being a problem and were seeking ways to improve joint work and communication flows.

There was also evidence that babies had been repatriated from Level 3 units to PCH when they were still less than 32 weeks gestation. There is no firm guidance in place to cater for these circumstances and this situation should be reviewed as it may represent an avoidable risk.

Joint review and learning processes are central to effective MDT working. Within key clinical governance and audit meetings, the review team found that attendance was not always consistent and not always multidisciplinary. The review team was unable to identify substantial evidence to demonstrate that there was effective joint leadership or joint ownership of day-to-day governance and audit issues which impacted positively on maternity and neonatal outcomes.

It is important to emphasise that the integration of maternity and neonatal services was one of the more significant safety critical issues which was escalated to the Health Board in August 2021. The review team have been informed by the Health Board that progress has subsequently been made in this area and that there is now improved collaborative working between maternity and neonatal services.

However, this work remains in its infancy and there is much still to be done to ensure that it is embedded practice. The Health Board will be reporting on the progress it has made when it publishes its response alongside this report.

(ii) Avoiding Term Admissions Into Neonatal Units (ATAIN)

The lack of progress in improving ATAIN data is a further indication of clinically disconnected care. It is also a clear reflection of a lack of ability to deliver joint improvement. Dashboard data shows a term admission rate of 7.8% (2020/2021). This is above the Health Board's target of 6% and has been consistently above 7% from 2017 to present. It was also a matter of concern that there was a rising trend in term admissions during the first quarter of 2021.

Audit findings presented locally during October 2020 identified that most term admissions arose from the need for the management of hypoglycaemia and management of respiratory distress; 29.5% of those admissions were assessed by the local team as being potentially avoidable. The 2020/21 ATAIN Action Plan has significant gaps in the plans to reduce term admission rates and more specifically in relation to reducing avoidable admissions due to hypoglycaemia and respiratory distress.

(iii) Transitional Care

The current provision for Transitional Care (TC) is a pathway of care rather than an established service model and is delivered on the postnatal ward. There is a local guideline for TC which has been operational since the end of 2020, although aspects of this have yet to be fully implemented or evaluated to assess their effectiveness.

The staffing model within the TC guideline differs to the staffing model currently in place and staff identified the sheer volume of work and a lack of dedicated resource as barriers to further development of the service. The review team did not see any evidence of parental engagement in developing the emerging TC service.

The review team was particularly concerned to see proportion of babies admitted to the Neonatal Unit from the postnatal ward in conjunction with the persistently high term admission rate to the Neonatal Unit.

Evidence from local audit identified low compliance rates for the completion of Newborn Early Warning Trigger and Track (NEWTT) assessment charts and monitoring of blood glucose levels for babies at risk of hypoglycaemia.

9.3 SUMMARY

Based on the evidence seen from a range of sources, the review team were not assured that there were adequate measures in place to ensure:

- effective team working at all levels;
- that babies outside of the unit's admission criteria were born in the right place;
- effective identification and management of babies with enhanced care needs.

It is essential in improving the safety and effectiveness of perinatal care that strong multidisciplinary team links are established between the maternity and neonatal teams at all levels and this should be a priority for the Heath Board.

During the course of the review, the review team evaluated the arrangements which are in place for delivering the Neonatal Improvement Plan and found that in addition to an apparent disconnect between the maternity and neonatal improvement teams, there was also tensions between the neonatal improvement team and the neonatal clinical teams. This appeared to result in silo working and was inhibiting progress in delivering improvement at the pace which is necessary and in a joined up way.

Whilst not directly relevant to the deep dive review itself, these issues do require further examination by the Health Board and the Panel.

9.4 RECOMMENDATIONS

In order to address the areas for improvement identified in this area of the review, the Panel has made four recommendations for action by the Health Board which are set out in the full report. In summary, these relate to:

- joint ownership of these aspects of care that are co-dependent on maternity and neonatal services via the ILG governance and assurance processes; (Rec 6.1)
- a review of the working arrangements for the neonatal and maternity improvement teams to ensure effective joint working; (Rec 6.2)
- neonatal and maternity teams working together at all levels to support changes in service delivery; (Rec 6.3)
- the involvement of an appropriately diverse service user voice at national, network and local levels. (Rec 6.4)

10. CLINICAL CASE ASSESSMENTS

As an integral part of the 'deep-dive' review methodology, the review team independently assessed the clinical care provided to 25 of the sickest infants who were admitted to the Neonatal Unit at PCH during 2020. The purpose of these assessments was to provide an insight into the safety and effectiveness of the neonatal clinical care which is currently being provided by the Health Board.

The criteria used for selecting the episodes of care which were assessed, the methodology used to conduct the assessments and the key themes and issues which emerged from the analysis of the findings are set out in detail in the full report This also provides a detailed analysis of the clinical learning which emerged from the review which then formed the basis of the review team's recommendations for improvement.

This section of the full report includes detailed information which will assist the clinical teams in understanding precisely what is required to address each of the areas for improvement which have been identified by the review team in this area. It is primarily intended to be read by a clinical audience.

The key themes and issues which emerged from the clinical case assessments are briefly summarised in the sections which follow.

10.1 ASSESSMENT CRITERIA

The assessment process which was adopted mirrored to a significant extent the process used for the reviews undertaken as part of the 2016-18 'Look Back' element of the Panel's Clinical Review Programme.

Each of the 25 episodes of care were reviewed in 12 key areas to identify whether there were any modifiable factors (i.e. things which could or should have been done differently having regard to recognised standards and effective clinical practice).

A standardised assessment tool was utilised for this purpose and a peer review process to ensure consistency.

Where a modifiable factor was identified, the review team attributed a significance rating to the issues which indicated to what extent it could reasonably have been expected to have contributed to the outcome for the baby.

The definitions for each category of modifiable factor are outlined in Table 1 below. If there was a modifiable factor but it did not affect the outcome for the baby, it was classified as an opportunity for wider learning to be shared with the Health Board.

Table 4: *Definition of Modifiable Factors*

No.	Modifiable Factors	Definitions
0	**No Modifiable Factor**	No issues with care identified.
1	**Wider Learning Factor**	Care issues identified which would have made no difference to the outcome for the baby.
2	**Minor Modifiable Factor**	Care issues identified which may have made a difference to the outcome for the baby.
3	**Major Modifiable Factor**	Care issues identified which were likely to have made a difference to the outcome for the baby.

10.2 THEMATIC ANALYSIS

When all of the clinical case assessments were completed, the findings were analysed and the following conclusions were drawn:

- there was wider learning in all of the 25 cases;
- minor modifiable factors were identified in 17 of the 25 cases;
- at least one major modifiable factor was identified in two cases, indicating that different care or treatment was likely to have resulted in a different outcome;
- all of the cases had more than one modifiable factor;
- the number of modifiable factors in an individual case ranged from four to ten.

When modifiable factors were assessed across each of the 25 cases, a number of clinical themes emerged which were identified in multiple cases. These themes are explained in some detail within the full report and specific examples are provided. However, the main themes and issues to be summarised as:

- standards of documentation;
- prescribing issues;
- clinical leadership;
- communication with families;
- interpretation of X-rays;
- risk management;
- transport services.

The issues identified were similar to those emerging from the early phases of the Panel's wider 2016-2018 'Look-Back' exercise, indicating that there has been no appreciable change in clinical practice in the intervening period of time.

10.3 IN SUMMARY

The clinical case assessments provide a valuable insight into the safety and effectiveness of the clinical care provided by the neonatal team at PCH. The findings indicate key areas where clinical improvement is required within the neonatal service and give rise to the recommendations set out below.

10.4 RECOMMENDATIONS FOR ACTION

In order to address the areas for improvement which were identified from the clinical case assessments, the Panel has made eleven recommendations for action by the Health Board which are set out in the full report. In summary, these relate to:

- timely, open communication with families on the Neonatal Unit; (Rec 7.1)
- escalation processes to enable support to be obtained from the tertiary service where short term stabilisation and intensive care is required; (Rec 7.2)
- improved prescribing standards and additional pharmacy support; (Rec 7.3)
- development of guidance for managing therapeutic hypothermia (cooling) in line with national best practice; (Rec 7.4)
- auditing of standards for radiology reporting; (Rec 7.5)
- improved documentation in line with GMC/NMC standards; (Rec 7.6)
- development of an incident trigger list to ensure subsequent multidisciplinary review of significant events (e.g. unplanned extubations); (Rec 7.7)
- establishment of local quality improvement initiatives in key areas using national toolkits and multidisciplinary team involvement; (Rec 7.8)
- use of external support to ensure the robust review of incidents; (Rec 7.9)
- clinical review of the additional 22 cases from 2020 which met the inclusion criteria but were not selected for review; (Rec 7.10)
- documentation of uncertainty and reflection within clinical decision making to be encouraged and adopted as standard practice. (Rec 7.11)

11. SUMMARY AND CONCLUSIONS

The deep dive review has clearly identified that the neonatal service currently being provided at Prince Charles Hospital requires significant and sustained improvement. The review has explored, in depth, all aspects of the service, including the way in which it is integrated with the maternity service, other Health Board services and the wider network of neonatal services.

During the course of their work, the review team identified some strengths to build on, not least, dedicated and caring staff at all levels who are committed to the neonatal service and its ongoing development. The team also found a range of governance and assurance structures have been put in place which contribute to safety and effectiveness, albeit that these are not yet functioning in the way they need to. Additionally, the way in which serious incidents are identified, recorded, investigated and learned from is evolving and improving, albeit that there is still a need for more rigour and greater consistency.

Against that background, a number of areas were identified in addition to the safety-critical actions from the interim escalation, where the service needs to improve and in some areas, improve at pace. The Panel has made a wide range of recommendations relating to:

- data collection, analysis, audit and reporting;
- family engagement and support;
- workforce;
- governance and assurance mechanisms;
- clinical practice and learning from incidents;
- culture and team relationships;
- reflective practice;
- development of the Maternity and Neonatal Network.

The recommendations are intended to improve recognition of ‘what a good service looks like’; they are detailed and specific and intended to be more helpful than broad overarching statements. The recommendations have been translated into an action plan template which the Health Board will use as the basis of its improvement work going forward.

The Health Board has welcomed this level of scrutiny and detail because it will help to inform the improvement actions which are already underway as well as shaping their longer-term development of the service for the benefit of babies and their families and the wider communities.

A large number of the Panel’s recommendations apply to specific aspects of clinical care or governance processes and these can and must be addressed rapidly. To enable this the Health Board should build on the learning from improvements which have and continue to be made in the maternity service, as well as other areas of the Health Board’s improvement work. Other recommendations require cultural and behavioural change which will take longer to realise in line with the Health Board’s wider strategic development programme.

The Panel believes that the findings and conclusions which have emerged from the deep dive review may offer wider learning for other health bodies in Wales and potentially beyond. The Panel has made four recommendations for consideration by the Welsh Government which are summarised in the relevant sections of this report and set out in detail in the full report.

The findings from the review and the emerging recommendations may be of concern, not only for the women and families who have previously used the service but also those who may need to in the future, as well as the wider communities in which they live. They will need assurance that the service meets the standards which they are entitled to expect.

In order to offer that assurance, the Health Board is publishing a response to the findings of the review alongside the publication of this report. This explains what the Health Board has already done to address the issues escalated as requiring immediate intervention in August 2021, as well as explaining what further remains to be done going forward. The response can be accessed here.

Ultimately, the Panel believes that the current service is well placed to respond to all of the areas for improvement which have been identified by the review and some of these can be addressed within reasonably short timescales. However, in order to deliver the improvements which are necessary, it is essential that:

- the work which is currently being undertaken to address the safety related issues which were escalated in August 2021 continues at pace, is robustly monitored and carefully evaluated to ensure that the change which is needed is embedded;
- the recommendations within the report are assessed, prioritised and integrated within the Health Board's wider Maternity and Neonatal Improvement Programme to ensure that they are effectively monitored and delivered;
- the Board provides the same level of oversight and scrutiny to the neonatal service that it has to the maternity service, aided by a more comprehensive dashboard of relevant and accurate data metrics;
- there is adequate investment within the neonatal service to provide the capacity within the clinical teams to deliver the improvement which is necessary;
- the existing framework for delivering improvement is reviewed to ensure that the clinical teams are fully engaged and supported by the dedicated improvement teams to deliver sustainable change.

In the meantime, the Panel will continue to work with the Health Board and the Welsh Government to ensure effective oversight of the safety and effectiveness of the neonatal service. Improvements in both neonatal and maternity services will be monitored through the Panel's established assurance mechanisms which supplement the Board's internal governance arrangements.

An update on progress against the recommendations and the wider Maternity and Neonatal Improvement Programme will be provided in the Panel's next progress report which is anticipated to be published in the Spring of 2022.